Australian MODEL RAILWAY Magazine

$2.00

OXER ELECTRONICS

JUNE, 1983. ISSUE 120. Vol.11. No.3

IN THIS ISSUE:

The Kingfield, Twinlakes & Maine Railroad

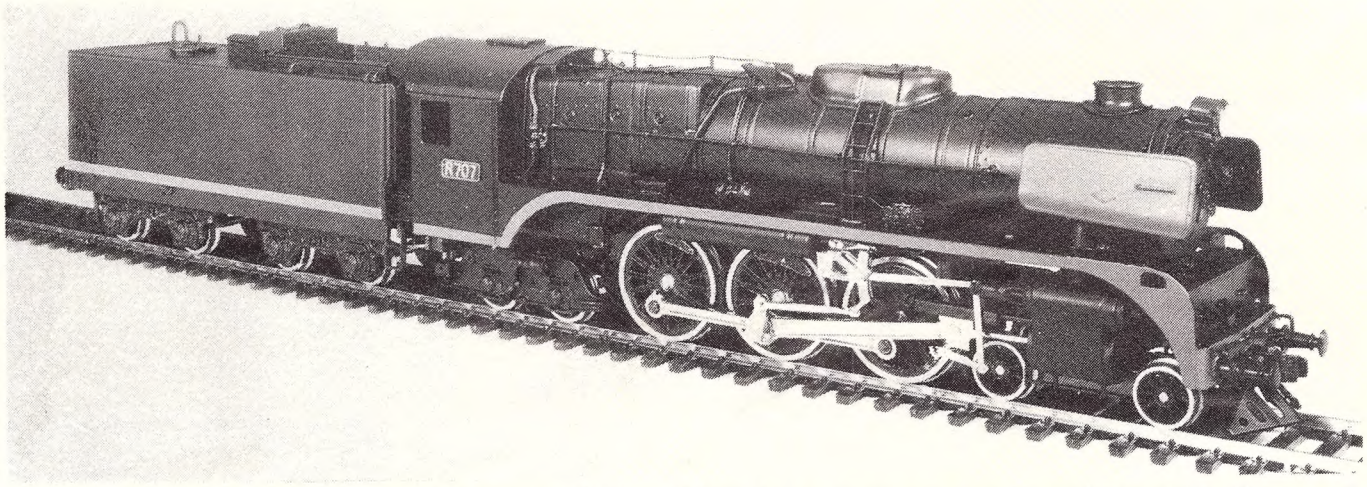
Building a Vicrail 'F' class locomotive in N scale

PHG Brake Van

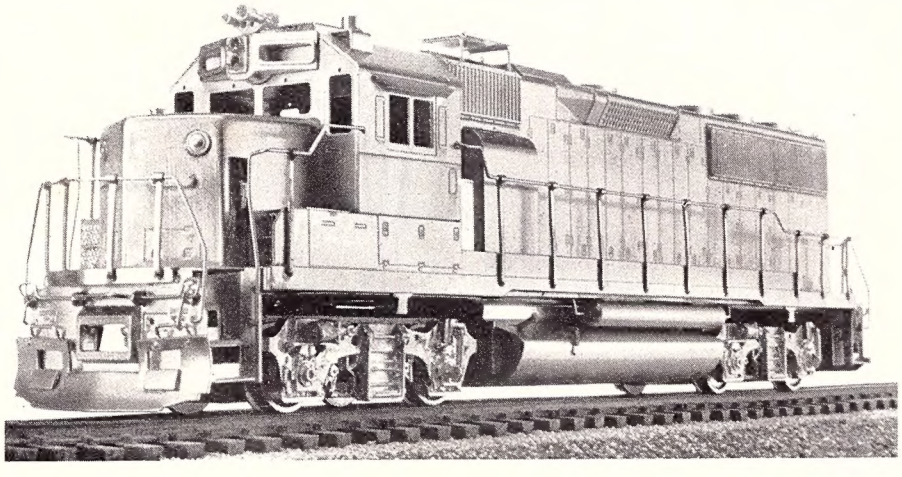
Modelling Queensland Railways

Registered by Australia Post Publication No. NBH0729
*Recommended retail price only.

THE MIGHTY V.R. "R" CLASS HUDSON . . . . — NOW AVAILABLE . . . . IN HO SCALE . . . .

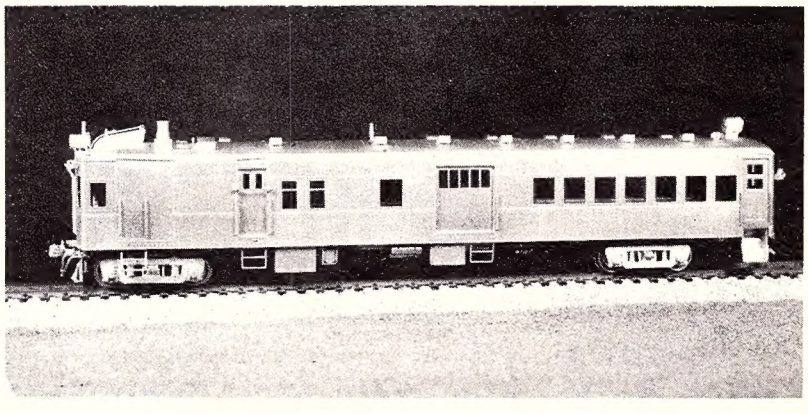


The above view shows the impressive, new HO V.R. "R" Class 4-6-4 Hudson Locomotive, outshopped by Kumata, of Japan, to the order of Model Dockyard. Special features include Mashima 'can' motor and idler gearbox combination, with in-line drive, eliminating the usual flexible drive coupling. Authentic "SCOA-P" pattern drivers, detailed down to the full 16 fluted spokes. Sprung drivers, with brake shoes and hangers. Furnished cab with backhead detail, seat boxes and engineers' air brake stand. All external piping and conduits. Special V.R. pattern Tender and Loco. trailing truck frames, with spoked bogie wheels. All external Loco. and Tender rivet detail. Tender finished down to provision of deck drain holes. Model painted and lined, to 'Tenshodo' standard. PRICE: $565.00.



Big, modern 3500 h.p. 4-axle EMD GP50. Distinctive in appearance, but not a radical change from earlier GP series locomotives. Manufactured by KMT, of Japan, for Hallmark Models. HO Santa Fe version (ATSF 3810-3839). As the review in January "Model Railroader" states, ". . . a good running, good looking replica of an up-to-date prototype. PRICE: $287.00.

Burlington Route



Suitable for main or branch line service and a train in itself, the rail motor car is perhaps the most versatile single item of equipment available to the model railroader. Burlington's ED-3-B Series Gas-electric Car comes from KMT, of Japan, to the order of Oriental Models, in HO scale. PRICE: $287.00.

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TRAX C34 class 4-6-0 locomotive, exp Feb '84.
MANSFIELD D50 Class 2-8-0 loco, exp Jne '83.
BROAD GAUGE MODELS V.R. A² 4-6-0, exp May '83.
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THE VR 'C' CLASS DIESEL

The second offering in our range of Korean built models of VR prototype will be the large VR 'C' Class diesel. The model will be available factory painted and lined - BGB decals will be included to allow for individual numbers, radio equiped symbols etc. The 'C' Class will be manufactured by SAMHONGSA of Korea and will include that builders excellent gearbox (fully enclosed in a diecast housing) and a can type motor. This will be your first chance to get some really modern motive power onto your VR or SAR layout - the 'C' also operates into Adelaide.

Delivery is expected late October 1983.
Price had not been determined at the time this ad. was prepared (early April) however we expect it will be similar to other Australian diesels from this manufacturer. A deposit of $75 will secure your order.

THE VR 'C' VAN

The second offering in our VR brass, ready-to-run rolling stock programme will be the 'C' guards van. The 'C' Van will be produced for us by THE MODEL COMPANY of New Zealand. It will be available in two versions - with and without the side vision extensions. (These side vision extensions allow the guard to make observations along the side of the train - not just at roof level). The model will feature many lost wax cast brass detail items. The bogies will be brass castings and will be complete down to the VR on the axle box covers. As with the 'Z' Van, we will market some of the detail items used on the 'C' Van separately. The 'C' Van will be painted and will include decals.

Expected delivery date is August 1983.
Price will be .. .. $89.95.

Production will be limited. Delivery from New Zealand will be on a 'batch' basis with the first 'batch' due in August and subsequent 'batches' to follow at 6 to 8 week intervals. No deposit is required. The 'C' Van will be a perfect 'trailer' for our VR DERM.

THE VR 'Z' VAN

We have asked THE MODEL COMPANY to produce another small batch of 'Z' Vans for us. This will be the last of the 'Z' Vans at the $69.95 price. Any future runs will be at a higher price - so don't delay.

OTHER VR BRASS

Apart from our own programme of brass imports we can supply models from Broad Gauge Models and The Australian Locomotive Company. Expected are:

from ALC - the VR 'T' Class Diesel. Due 4th. quarter '83 - estimated price is $275. Deposit required is $75.
from BGM - the VR 'A2' Steam engine. Due late May '83. Price will be $410 unpainted, $445 painted.

PLEASE NOTE A CHANGE OF OUR TRADING HOURS

Our shop at 535 Plenty Road PRESTON will be open at the following times:
Friday 4:00pm to 9:00pm.
Saturday 9:00am to 1:00pm.
Our Mailorder and Import-To-Order service will continue unchanged.

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We have now installed a Microfiche reader to enable us to make use of WALTHERS SAS Stock Advisory Service. Each month WALTHERS supply us with information recorded on microfiche which gives complete details, including price changes, expected delivery dates and availability for over 44000 different Model Railway items carried by them. Customers who buy their Walthers Catalogue from McBees also receive (at no charge) the monthly Craft Train News which contains details of new releases etc. All this plus our computer to computer ordering (airfreight from the USA) service gives Australian modelers the same 'freedom of choice' as their US counterparts. Due to the recent and large devaluation of the Australian dollar our price on imported products has increased by about 12.5%

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No. 80 — September/October, 1976
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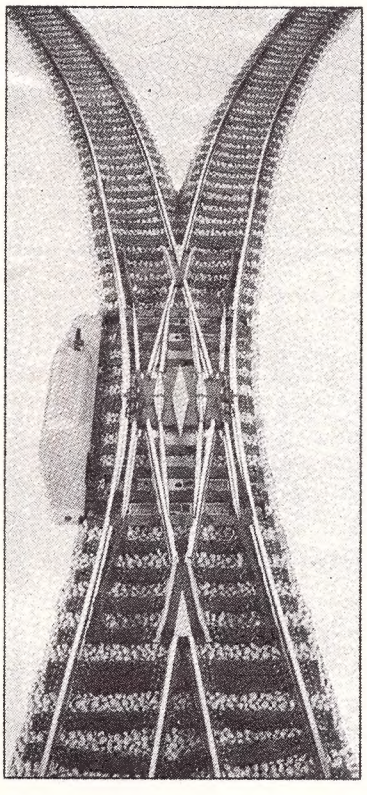

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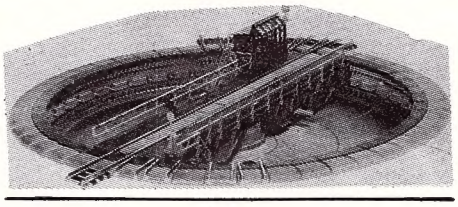

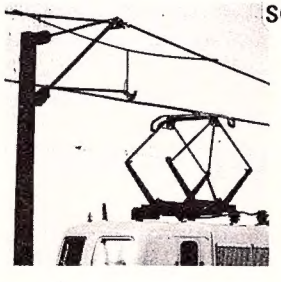

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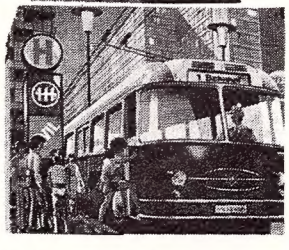

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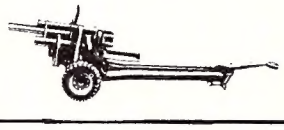

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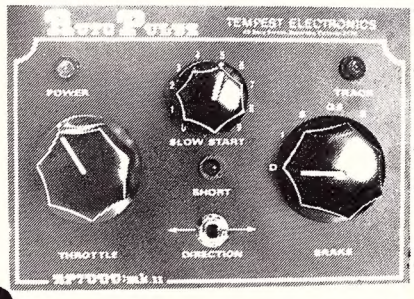

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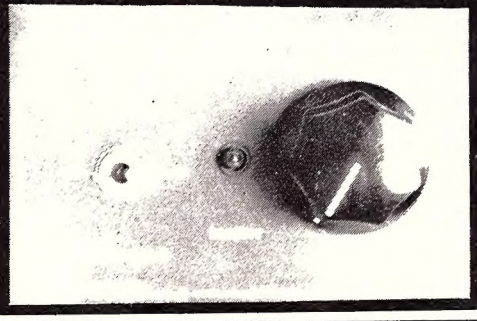

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MANSFIELD HOBBIES

A REMINDER FOR THE MODELLER OF AUSTRALIAN RAILWAYS . . .

As well as producing brass models in HO of N.S.W. prototype locos we stock AR Kits, including the new BCH coalhopper, Camco, Mini Models, Trax, with recommended Roundhouse and Lima Bogies, 10.5mm disc wheels, Kadees, Floquil and Tamiya paints, and Badger and Paasche airbrushes. In N gauge are included Sentinel C38 white metal loco kits and Fybren Models VR ELX and VLX kits.

For the scratch-builder and superdetailer we offer our own extensive range of brass and white metal castings, brass laddering, K&S Metal, Plastruct, styrene sheet, Sentinel, Protype, M&J decals, and our own decals of NSWGR Crest (old and new), numbers for 43, 442 and C38 locos, and Waratah emblem.

Of course, we also stock Marklin, Lima, Mainline, Hornby, Bachmann, Minitrix, Roco, Ibertren, and other locos and rolling stock as well as Peco and Lima track and points and a comprehensive range of kits and materials for the layout. Transformers and controllers stocked include Eda, H&M, Locomotion, and Mansfield's own hand-held walk-round controller built to our existing standards.

And last but not least, don't forget a good read . . . Most Australian and overseas publications and magazines with new ones as they become available.

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AR KITS

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K open wagon 4 wheeler	ea $ 5.55
Or 5 kits for	$27.00
S open wagon 4 wheeler	ea $ 4.95
Or 5 kits for	$24.00
LCH coal hopper 4 wheeler	ea $ 5.20
Or 5 kits for	$24.00
CCH extended coal 4 wheel hopper	ea $ 5.95
Or 5 kits for	$28.00
RSH 4 wheel rutile hopper	ea $ 5.95
Or 5 kits for	$28.00
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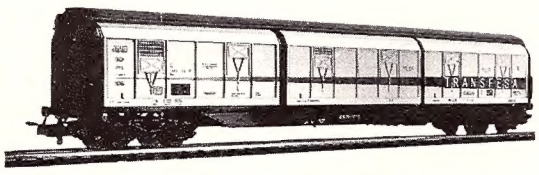

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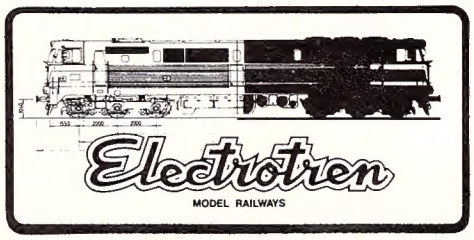

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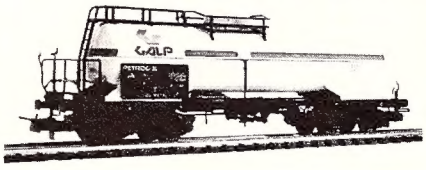

REF: 5425 GALP TANK CAR (Portugal — C.P. markings)

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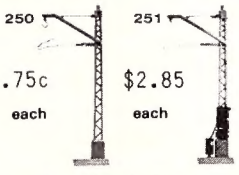

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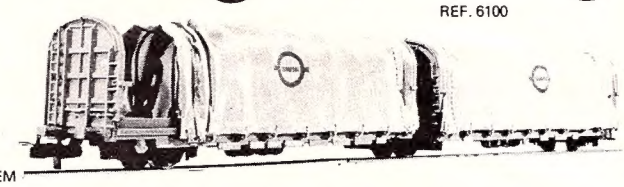

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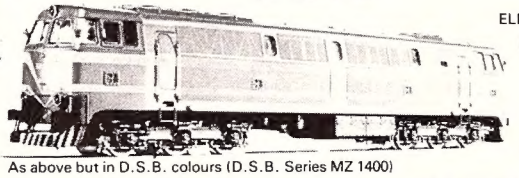

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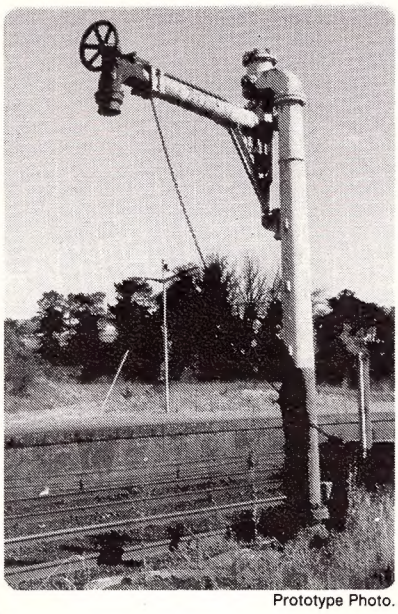

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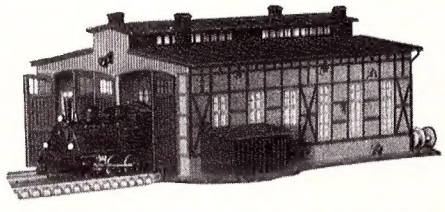

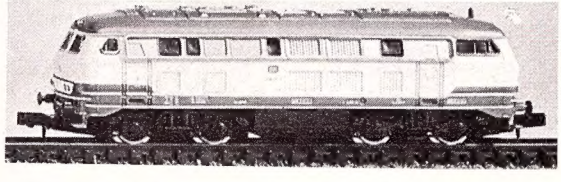

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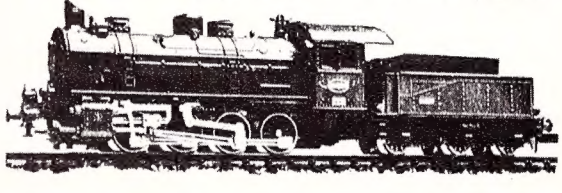

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DIARY

EXHIBITIONS

BLACKTOWN — N.S.W. June 11, 12, 13 1983 at St.Patricks Hall, Patrick St., Blacktown. Open Sat 9am-6pm, Sun 10am-6pm, Mon 10am-5pm. Organised by Prospect Model Railway Club.

STRATHFIELD — N.S.W. June 18, 19 1983 at Strathfield North Primary School, Cnr. Concord Rd & Correys Ave, North Strathfield. Open 10am-5pm. Admission $1/60c. Organised by Sydney Model Railway Club.

CAMPERDOWN — Victoria. July 2, 3 1983 at R.S.L. rooms. Open Sat 12 noon-5pm, Sun 12 noon-4pm. Admission $1.00/50c. Organised by Camperdown & District Model Railway Club.

CROYDON — Victoria. August 27, 28 1983 at Maroondah High School Gymnasium, Maroondah Highway, Croydon. Open 9am-8pm. Exhibition includes competition. Organised by the Croydon Model Railway Club. Further details, (03) 725 6798 or (03) 657 2375.

BUNBURY — Western Australia. September 4, 5 1983 at the Bunbury Police and Citizens Youth Club. Further details from Secretary PO Box 121, Bunbury 6230. Organised by the City of Bunbury Lions Club.

SYDNEY — N.S.W. October 1, 2, 3 1983 at the Royal Agricultural Showgrownds, Driver Avenue, Moore Park. Open 10am-8.30pm (Sat), 10am-6pm (Sun, Mon). Admission $3/$1. Organised by the N.S.W. Branch of the Australian Model Railway Association.

ADELAIDE — South Australia. October 8, 9, 10 1983 at the Regency Park Community College. Interested exhibitors should contact T.Searle on (08) 212 7099 or (08) 332 6422 a.h.

CONVENTION

MELBOURNE — Victoria. June 11, 12, 13 1983 at Diplomat Motor Inn, St. Kilda. Details from the Secretary, Port Phillip Convention, 6 Kiers Court, Rosanna East. 3084.

CLUBS

KEMPSY — N.S.W and nearby railway enthusiasts and modellers. Are you interested in forming a group or club? Please contact Ian Barnes, 79 North Street, Kempsey. Ph (065) 627592.

SOUTHERN CROSS MODEL RAILWAY ASSOCIATION

Secretary: Trevor Moore. **Membership Enquiries:** P.O. Box 317, EPPING, NSW 2121.

The Annual Membership Fee for SCMRA is $14.00 from March to February and the Joining Fee is $12.00. Applications must be received by the first of the odd month to meet our mailing list deadlines. For applications received between the 2nd September and the 2nd January the Annual Fee is $7.00 plus the $12.00 Joining Fee.

Membership entitles you to participate in the activities of the Association, to receive AMRM and our regular newsheet Booster. Standards, Recommended Practices and Information Sheets covering model railway practice are included in the joining kit together with a vinyl ring binder and are also issued at regular intervals.

For further details write to the Secretary or contact the divisional representative.

Meetings are usually organised on the second Saturday of each month in New South Wales, Victoria and Queensland. For further details and location please contact the divisional representative.

DIVISIONAL REPRESENTATIVES:

New South Wales:
George Giraldi,
322 Elizabeth Drive,
Mt.Pritchard. 2170
Ph. (02) 602 3117

Queensland:
Max Chaseling,
10 Merlin Terace,
Kenmore. 4069.
Ph. (07) 378 4462

Victoria:
Paul Hemsworth,
114 Melrose Street,
North Melbourne. 3051
Ph. (03) 329 0195

MEETINGS

New South Wales:
June 18 — Meeting at AMRA clubrooms, Rockdale.
July 9 — Meeting at Beverly Hills.
August 13 -Annual General Meeting at Mt.Pritchard.

Victoria:
June 11 — Plastic kit building.
July 9 — Scenery building.
August 13 — Divisional Annual General Meeting.

Queensland:
June 11 — Film and slide show.
July 9 — Auction and running day.
August 13 — Divisional elections and clinic.

TRADE PRACTICES ACT 1974

The above act is now in force and contains strict regulations on advertising.

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JUNE 1983
Issue 120, Vol.11. No.3
AT ISSN 0045-009X

The official Journal of the Southern Cross Model Railway Association (SCMRA) in Australia.

Published bi-monthly by SCR Publications of PO Box 235, Matraville, N.S.W. 2036 for the Southern Cross Model Railway Association.

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DISTRIBUTION: Subscriptions, SCMRA and SMRS members, hobbyshops and Associations by SCR Publications; newsagencies and bookstalls by Gordon & Gotch Australia Ltd.

ADVERTISING: Details available from SCR Publications, PO Box 235, Matraville, NSW 2036. Phone (02) 661 4046 (evenings to 9pm only).

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December 1983 issue 12.10.83
February 1984 issue 9.12.83

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The Australian MODEL RAILWAY Magazine is published by SCR Publications, PO Box 235, Matraville, NSW 2036. Please address all correspondence to the Editor.

Australian Model Railway Magazine

COMMENT

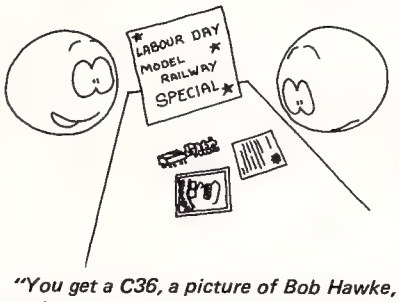
MARKETING OF MODEL AUSTRALIANA

If there is any substance in the statement that necessity is the mother of invention, then people searching for that distinctive Australian flavour on their layouts will need to do quite a bit of scratchbuilding or kit modification to achieve it. The large number of 'support' items and accessories nominated in recent readers' polls conducted by this magazine would seem to suggest that there are currently many openings for the manufacture of various ancillary items.

But how can 'specialist' items be economically produced and marketed within the relatively small Australian modelling community? By appealing to the widest possible market. A range of model buildings based on actual structures, for instance, could be of interest to members of the National Trust, model car collectors, aircraft enthusiasts or wargamers — don't forget that enemy action during World War 2 reached Darwin and Sydney. If the buildings were of particular railway interest they may find additional sales outlets through 'railway collectors' shops. They could even be purchased by various organisations and offered as prizes for mantlepiece display.

These avenues are perhaps all worthy of investigation to ensure the long-term viability of an Australian model manufacturer. Aside from buildings, there are other subjects which could be considered — one which springs immediately to mind is that of 3.5mm scale right-hand drive buses. Or HO scale models of electric multiple unit stock. And what about 'limited run' billboard vans advertising special events such as the golden jubilee of the Australian Railway Historical Society? I'm sure that readers can think of many more.

Paul Rogers.



"You get a C36, a picture of Bob Hawke, and a stop-work notice from the T.W.U."

ON THE COVER

Shades of the future — high speed diesel trains and electric wires.

The XPT high speed passenger train was on trials and being displayed to the New South Wales public when this photograph was taken by Bradley Hinton in September 1981. Only part of the 'XPT' was completed at the time, the consist in this instance being made up by a Southern Aurora van. The photograph was taken between Wahroonga and Waitara on the Sydney metropolitan North Shore line.

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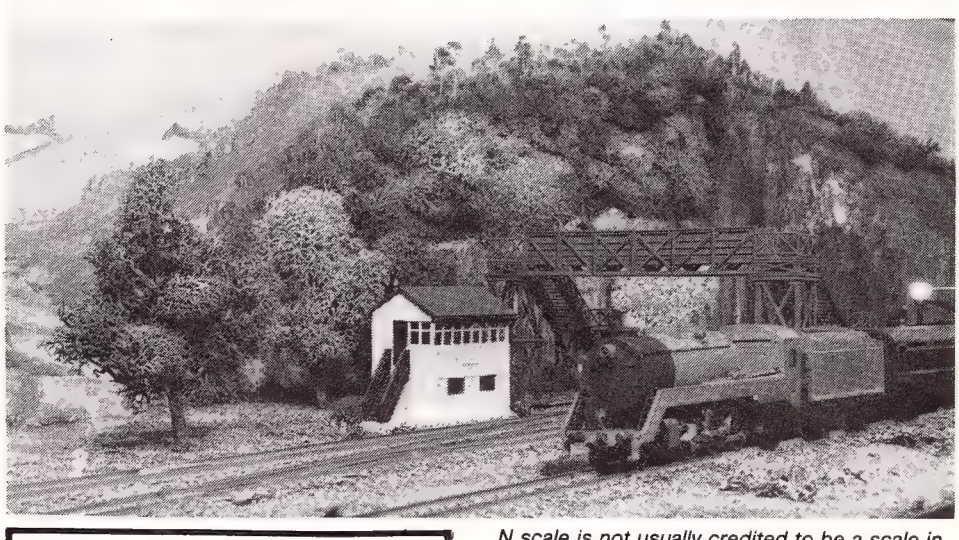
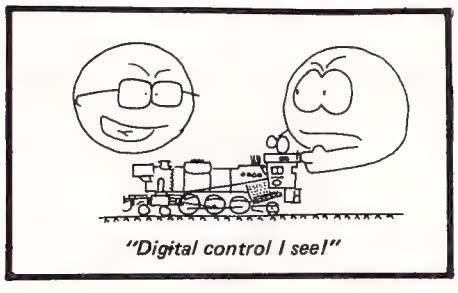
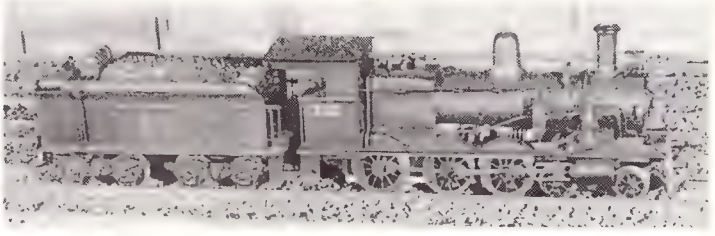


N scale is not usually credited to be a scale in which realism is readily obtained. This photograph of David Bennett's N scale module belies this belief. A Sentinel C38 is at the head of a MRC Air conditioned set. The module includes painted backdrop as well as detailed scenery and structures. Photograph by Bob Gallagher.

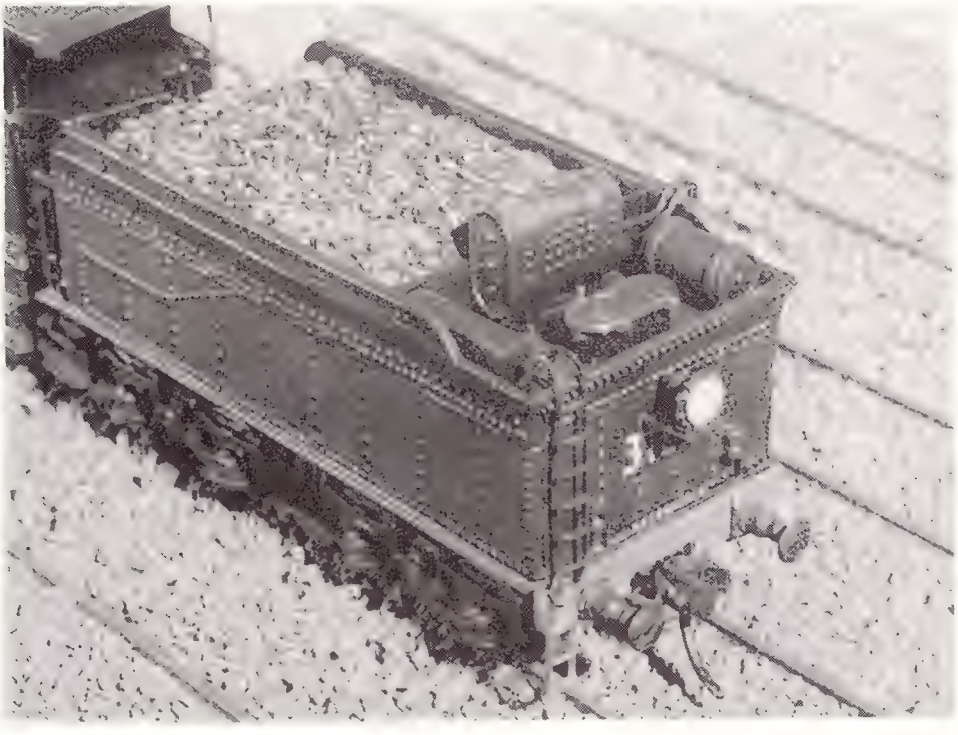


"Digital control I see!"

PAGE TWELVE



The models for **PAGE TWELVE** this issue are the work of John McKenzie, who models in HO scale, and generally follows the New South Wales Government system. Graham Ball was the photographer.

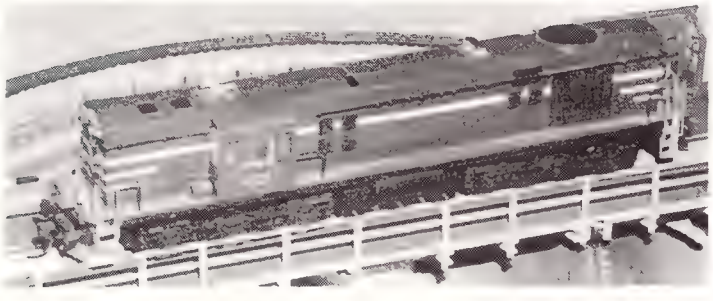


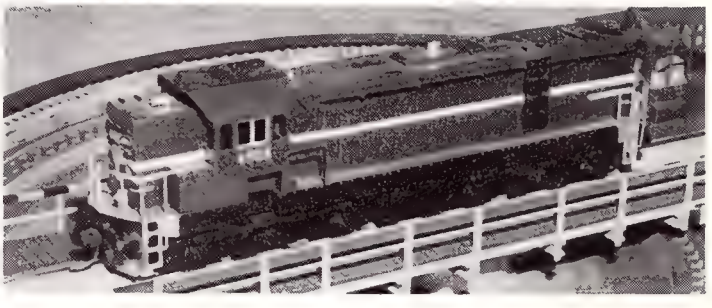
Above and Left: *John has built a number of N.S.W.G.R. C30T locomotives, 3122 being just one of three, and the latest built. The chassis was scratchbuilt from brass section using Romford wheels. The boiler, stack, dome and some other boiler fittings are Protype castings, the sandbox being formed from brass. The tender is an FSM C35 tender that has been lowered in height and specifically detailed using ABL (Stephen Johnson Models) Baldwin tender air reservoir. The model is fitted with Kadee couplers.*

Centre: *4473 started out being a Lima 44 but has been given extra power by the fitting of an extra power bogie (See AMRM Nov/Dec 1977 — More Muscle). The model has been fitted with Kadee couplers and repainted to current (1981/82) colour livery. The lining, front and rear, is the reverse scheme that was being applied to N.S.W. S.R.A. diesel locomotives for a short period.*

Below Left: *4521 is a Berg's Hobbies 45 class kit that has been assembled as per instructions, except for the cab which was modified to present a more correct profile. The model has been hand painted and lined after super-detail was applied.*

Below: *4908 is another Berg's Hobbies metal kit from New Zealand. The model was built up as per instructions except for the addition of the correct profile bogie sideframes which were modified from the Lima 'S' class.*





MODELLING QUEENSLAND RAILWAYS IN Sn3½

by Ken Edge-Williams
Neil Johnman
Steve Malone

In this article, we hope to explain the various scales in Queensland Railway Modelling used over the years and give some details of Sn3½ modelling activity within the Queensland Branch of the Australian Model Railway Association.

Queensland Railway Modelling.

A general rundown of the various scales:

TTn3½ – 1/120th or 2.5mm 1' scale using 9mm track gauge (N)

This scale is a fairly recent development and features all the advantages of the N scale size. N scale rollingstock parts are used when scratchbuilding in TTn3½.

HOn3½ – 1/87th or 3.5mm 1' scale using 12mm track gauge (TT)

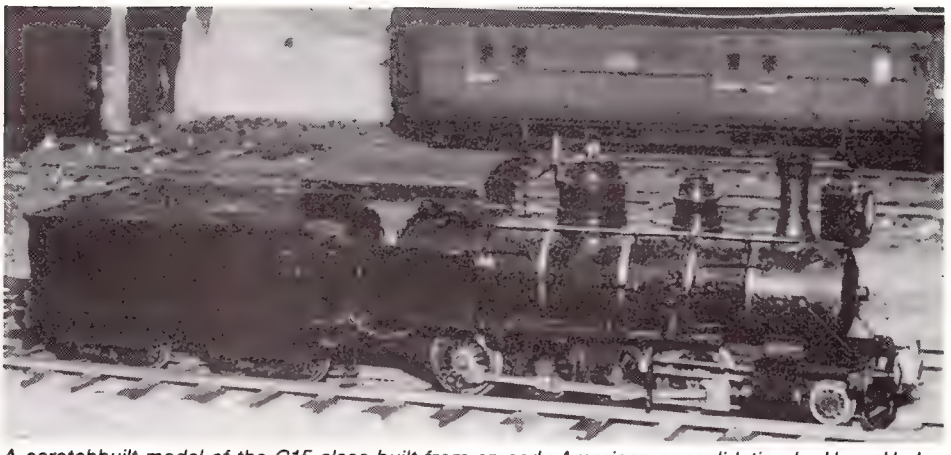
With "ready to run" and "kit" models becoming available in Australian (mainly NSW) HO in the late 60s and early 70s, many modellers left Sn3½ and took on the easier Australian HO scale. Those wishing to run Q.R. alongside could use the HOn3½ scale using TT track and rolling stock parts. The HOn3½ scale flourished for a few years. However as TT scale parts became hard to get, many lost interest. Recently some European manufacturers have taken on TT scale and this has brightened prospects for HOn3½ modellers.

4mm Scale - 16.5mm track gauge.

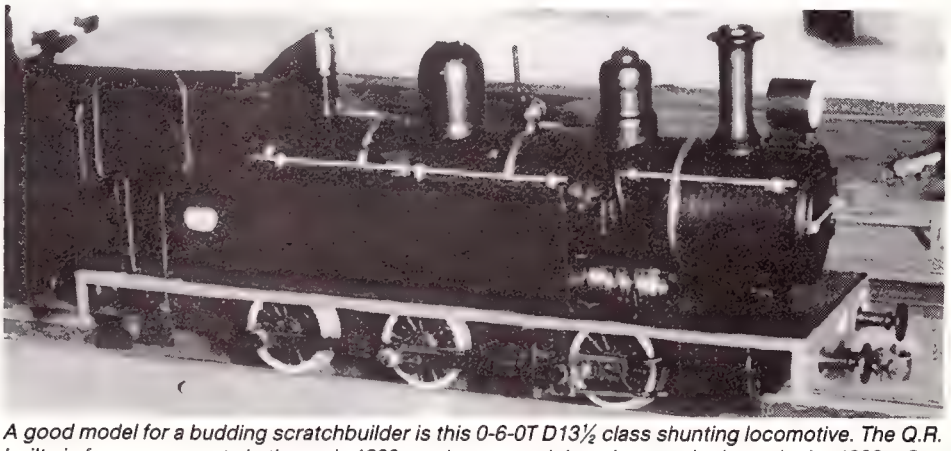
As normal Sn3½ needs greater clearances and larger radius curves (36" is a good average minimum), some modellers went "half way" (between 3.5 and 4.75mm) and used the 4mm 1' scale, using the HO/OO 16.5mm track. This is really the reverse of the incorrect English OO scale. Modelling Q.R. in this 4mm scale brings down the general size of the models so that they can be used on normal OO and HO layouts. To be correct, this scale should use 14mm trackwork. Some Queenslanders may remember the 4mm scale "Cardboard cut out" stainless steel suburban cars the Q.R. produced many years ago.

Sn3½- 1/64th or 3/16th" (4.75mm) 1' scale using 16.5mm track gauge (OO and HO).

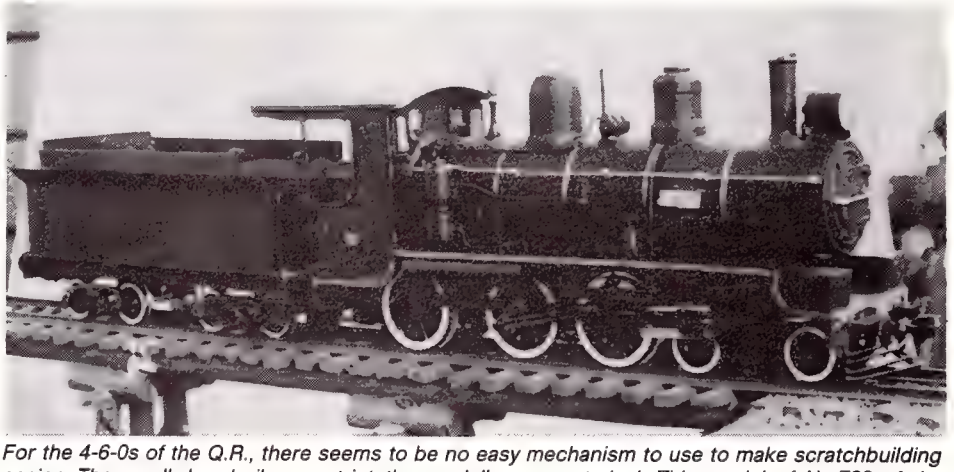
Sn3½ modelling started in the AMRA Queensland Branch back in the mid 1950s when Steve Suggit and Jim Fangies built some models for the Queensland Railways to use at the Queensland Industries Fair. This scale was quite new those days, "S" meaning 1/64th, "n" meaning "narrow gauge" and 3½ meaning the gauge being modelled (3'6"). 1/64th of 3'6" works out to be 16.6mm – very close to the 16.5mm track used by the HO and OO scales. Therefore, many HO and OO scale rollingstock parts could be used to make modelling easier. However, considerable scratchbuilding was



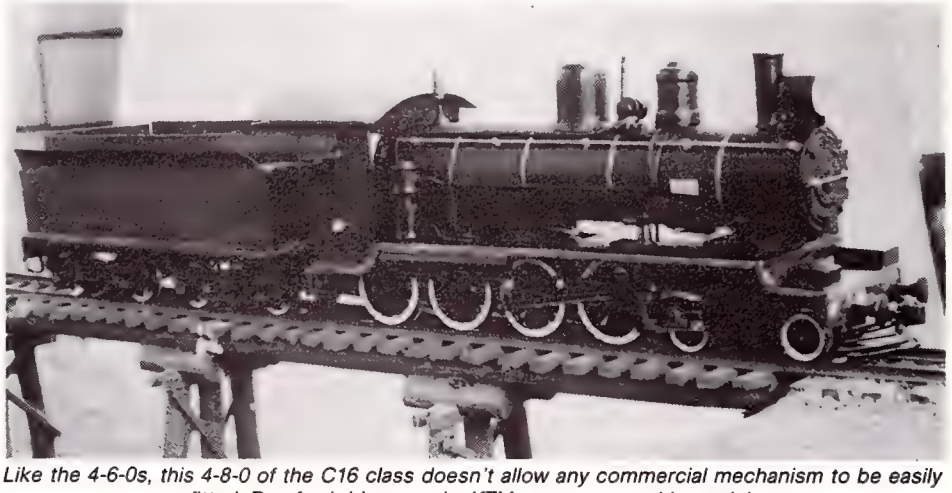
A scratchbuilt model of the C15 class built from an early American consolidation by Harry Harley and Steve Suggit. Nowadays a Roundhouse "old timer" consolidation would suit very well.



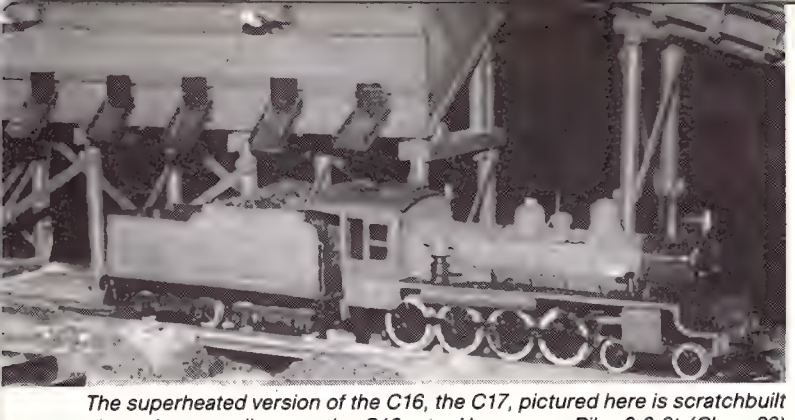
A good model for a budding scratchbuilder is this 0-6-0T D13½ class shunting locomotive. The Q.R. built six from spare parts in the early 1900s and converted them into tender locos in the 1930s. One is preserved at the Ipswich Railway Workshops. This model is built from brass, and used Romford wheels and gears and a small five pole KTM motor (DH13).



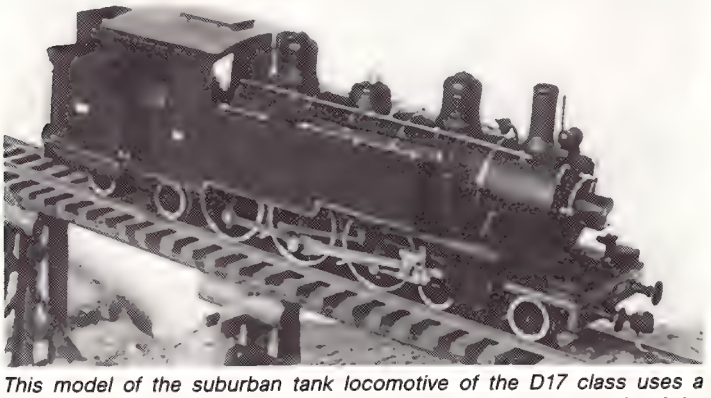
For the 4-6-0s of the Q.R., there seems to be no easy mechanism to use to make scratchbuilding easier. The small, low boilers restrict the modeller a great deal. This model of No.732 of the PB15(1924) class was built from a similar construction method as the D13½, above.



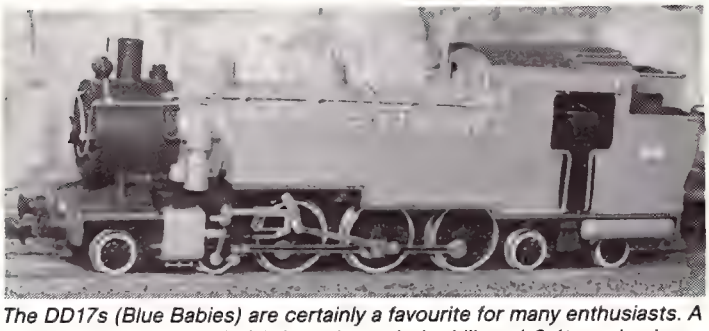
Like the 4-6-0s, this 4-8-0 of the C16 class doesn't allow any commercial mechanism to be easily fitted. Romford drivers and a KTM motor power this model.



The superheated version of the C16, the C17, pictured here is scratchbuilt along the same lines as the C16, etc. However, a Piko 2-8-0t (Class 86) has been known to have been kitbashed into an C17.



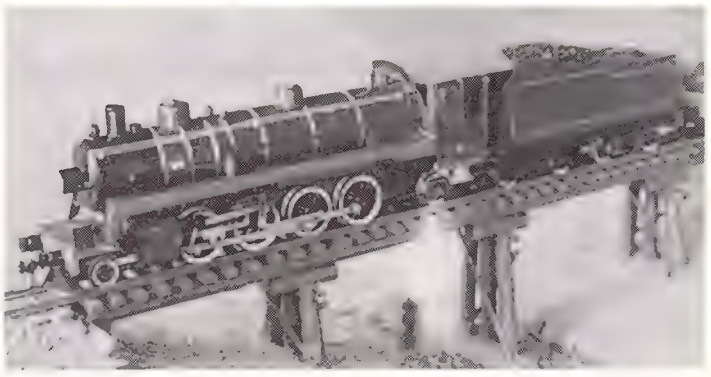
This model of the suburban tank locomotive of the D17 class uses a Mehanotehnika USRA Pacific for a mechanism. The trailing bogie of the pacific was replaced with a four wheel bogie. A boiler and body built up from brass or plastic is fitted on top. The Liliput 4-6-4t European loco mechanism also suits this loco very nicely.



The DD17s (Blue Babies) are certainly a favourite for many enthusiasts. A plastic or brass body is fabricated to suit the Liliput 4-6-4t mechanism.

Two Hamo 4-6-0 mechanisms were butchered into 4-8-2s to make two powerful mechanisms for this model of Q.R.'s Beyer Garratt No. 1009: The motors of the 4-6-0 Hamo mechanisms sit above the cylinders and front driving wheel, making this mechanism extremely suitable for a Garratt. Unfortunately, Marklin has ceased production of the "Hamo" (two rail) locos.

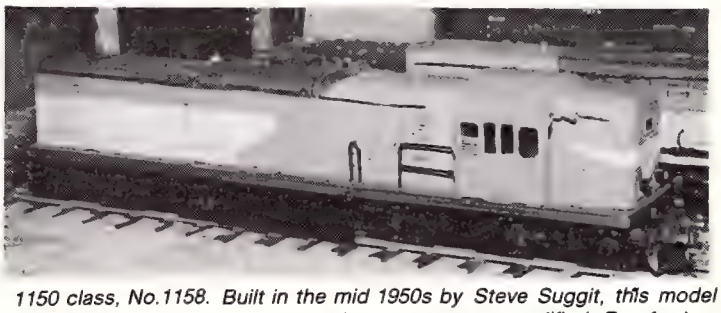
An easier Q.R. steam loco to model is the AC16 2-8-2s. A standard Lima Mikado mechanism fits under a new body built up from brass or plastic.



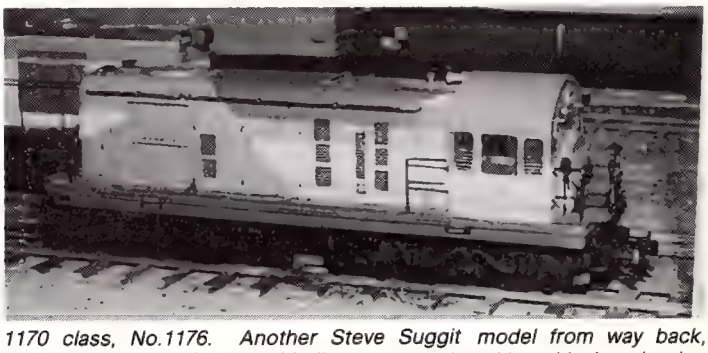
Very similar to the AC16, the model of the proposed CC17 2-8-2 locomotive also uses the Lima mechanism. At least two live steam models of the CC17 have been built; one hauls tourists around the Currumbin Bird Sanctuary at the Gold Coast.

Another proposed locomotive, the 4-8-2 CC19 class, also uses a Lima Mikado mechanism. The cylinder block is moved forward, the connecting and eccentric rods trimmed, and a new four wheel bogie fitted up front.

We all know the Lima C38 makes great BB18¼s and as well it suits the earlier B18¼s, if you'll pardon the driving wheel centres. For this model of 912, a styrene or brass body fits over the Lima mechanism.

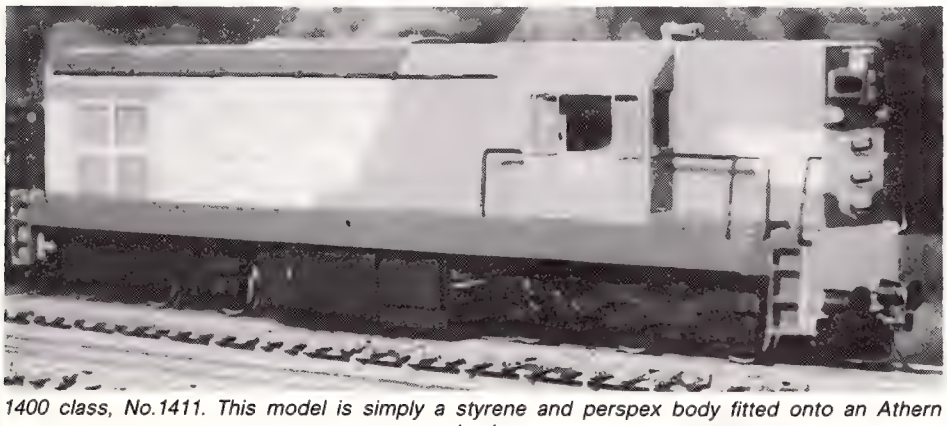


1150 class, No.1158. Built in the mid 1950s by Steve Suggit, this model is scratchbuilt from brass and runs on two modified Romford power bogies.

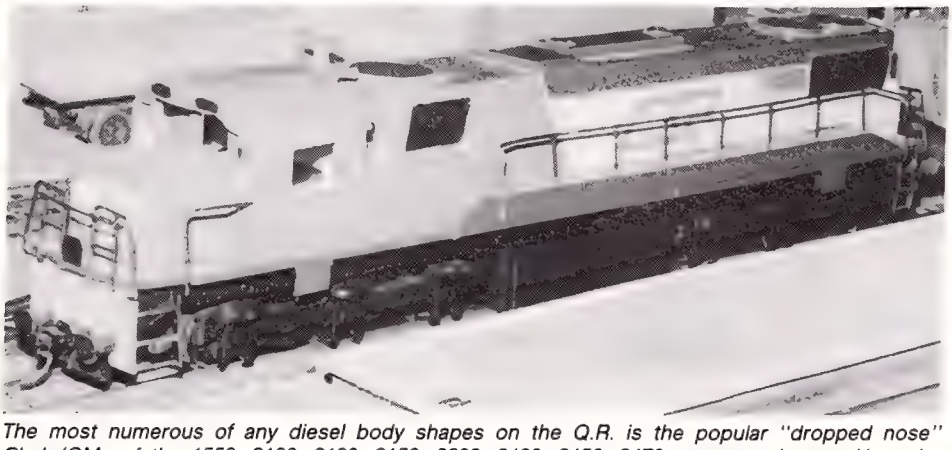


1170 class, No.1176. Another Steve Suggit model from way back, this one completely scratchbuilt. Nowadays Lima 44 class bogies (fitted with new sideframes) would be used with a new styrene body.

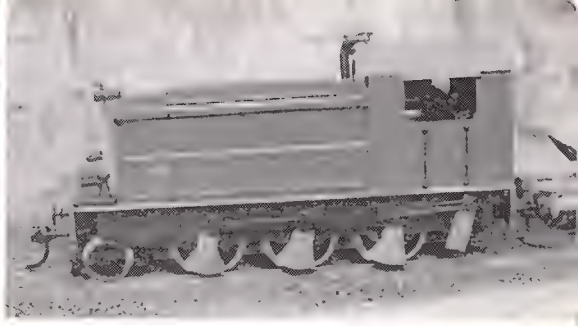
1200 class, No.1205. This 1200 class was built by Jim Fangies using Romford power bogies. This scene is on a Q.R. display at the Queensland Industries Fair in the mid 1950s. The layout was built for the Q.R. by the AMRA Queensland Branch. The 1200 class body is built from brass sheet; nowadays vacuum formed styrene bodies make it easier, powered by Mainline or Airfix mechanisms.



1400 class, No.1411. This model is simply a styrene and perspex body fitted onto an Athern mechanism.



The most numerous of any diesel body shapes on the Q.R. is the popular "dropped nose" Clyde/GMs of the 1550, 2100, 2130, 2150, 2200, 2400, 2450, 2470 etc. etc. classes. Here the Mainline 45 class works out rather well. The frame has to be lengthened slightly, new sideframes fitted, outer carrying wheels removed (the mechanism of the 45 is a 1Co-Co1) and a styrene body fitted. A model of 1552 from the 1550 class is shown here. The Mainline class 45 mechanism can also be used for other Clyde GM locos — 1450, 1460 and 1502 classes — but with these the frame doesn't need lengthening.



This model of DL4 uses a modified Lima class 107 diesel electric shunter. A jackshaft, pilot wheels and new styrene body are fitted.

still needed and this prevented any outstanding interest and progress in this scale in the 50s and 60s. However, with a vast range of HO and OO scale models and parts coming onto the market over the past five years, this has opened up many opportunities for Sn3½ modellers. Many inexpensive models can be obtained and rebuilt into something Q.R.

On3½- ¼" 1' scale, ⅞th" track gauge. (S)
Another scale for Q.R. modelling using O scale and S gauge track.

1n3½- ⅜th" 1' scale, 1¼" track gauge. (O)
Even larger still, is the 1n3½ scale using O gauge track. These modellers need lots of space, time and a good workshop.

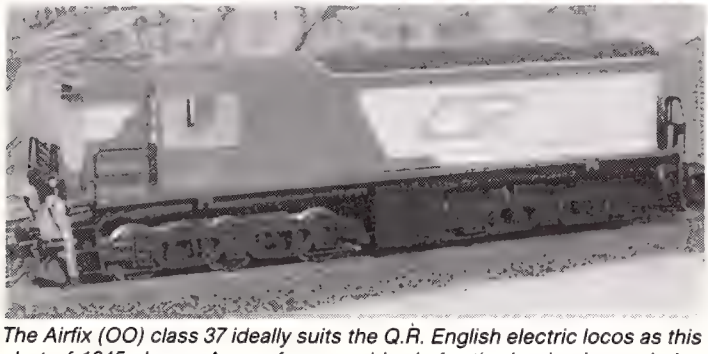
2n3½- $\frac{1}{24}$th or ½" 1' scale using 45mm track gauge. (1)
This scale uses gauge 1 track and is popular with those who like to see what they are doing and are prepared to scratchbuild everything. Good for the garden situation.

As can be seen, there are many scales used by Q.R. modellers. Every scale has disadvantages and advantages and it's up to the individual to explore each scale and choose one for his liking. Of course, we feel it's a shame that one scale is not the main scale; take a look at New Zealand's Sn3½, where a vast amount of parts and kits is now available, simply because there's only one main market for suppliers and manufacturers to look after. Railway enthusiasm is generally low in Queensland for various reasons and with the few that model Q.R. scattered over a large range of scales, it's easy to see why little is commercially available.

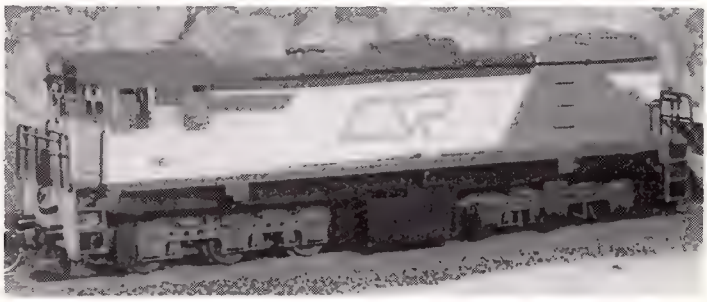
So until there is enough enthusiasm in one main scale, we believe little can or will be done commercially to assist modellers. There are only a few Q.R. modellers in the AMRA Queensland Branch and there must be a lot of "lone wolves" around the place. If all Q.R. modellers reveal their interest and show their colours, the market can be examined and maybe something done to assist Q.R. modelling.

Sn3½ In The A.M.R.A. Queensland Branch.
As with all railway modelling in AMRA, modellers can help each other with plans, photos,

Continued on page 26



The Airfix (OO) class 37 ideally suits the Q.R. English electric locos as this shot of 1645 shows. A new frame and body for the bogies is needed — made from styrene. MnJ Decals are used on the Q.R. diesels.



A popular branchline Q.R. loco is the 1700/1720 60ton diesel electric loco from Clyde GM. Nicknamed "Jets", these work mainly in the southern and eastern parts of the Q.R. This model of 1771 uses a Lima NSW 42 class mechanism which has been shortened and fitted with a new styrene body.

Kingfield, Twinlakes

by Ian Thorpe

Any modeller who visited the 1981 and 1982 Melbourne Model Railway Exhibition would have been impressed by a small, highly detailed narrow gauge layout, the Kingfield, Twinlakes & Maine Branchline Railroad. This model railway with its entrancing blend of scenery, structures and delicate narrow gauge rolling stock, grabbed my attention when I first saw it in 1981.

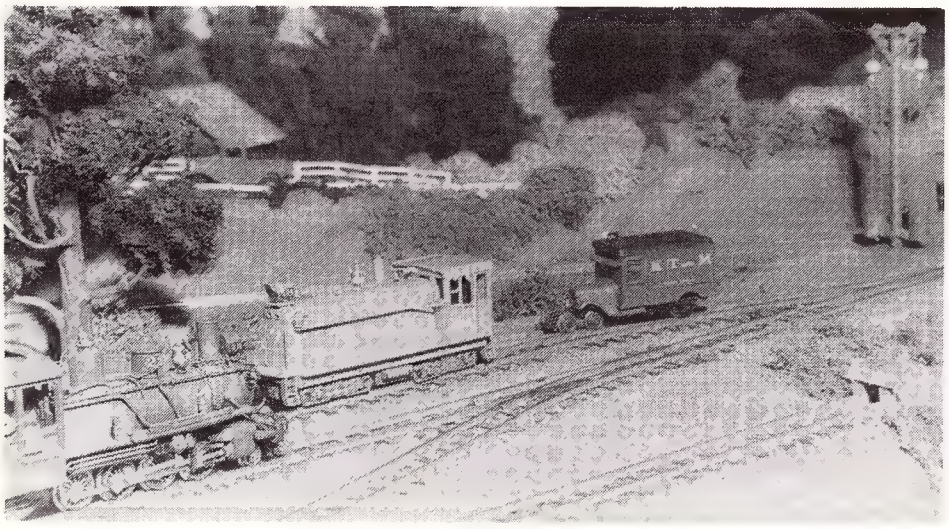
Quite by chance I was able to attend the Melbourne exhibition in 1982 and was pleased to see the K,T & M again on display. Once again I found myself captivated by this model railway. I was fortunate to meet two of the modellers responsible for the layout, Tony Walsham and Doug Kelly and was very impressed by their friendliness and their attitudes regarding modelling and other modellers.

What is the K,T & M Railroad ?

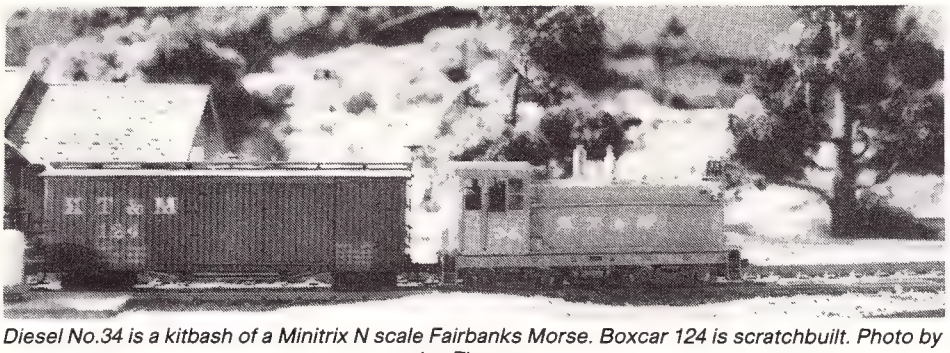
The K,T & M Railroad is an HOn2½ layout built primarily as an exhibition layout by Tony and Doug. Its theme is the 2' gauge railways which existed in Maine, U.S.A. up to the 1930s. The layout was built as an advertisement for Doug's shop — the Branch Line hobbyshop. It is interesting to trace the short history of this remarkable layout.

Tony, who was once a keen N gauge modeller, was smitten by the dreaded "narrow gauge bug" about the same time that Doug and Marion Kelly took over the Branch Line Hobby shop. Tony, a frequent visitor to the shop, quickly became firm friends with Doug.

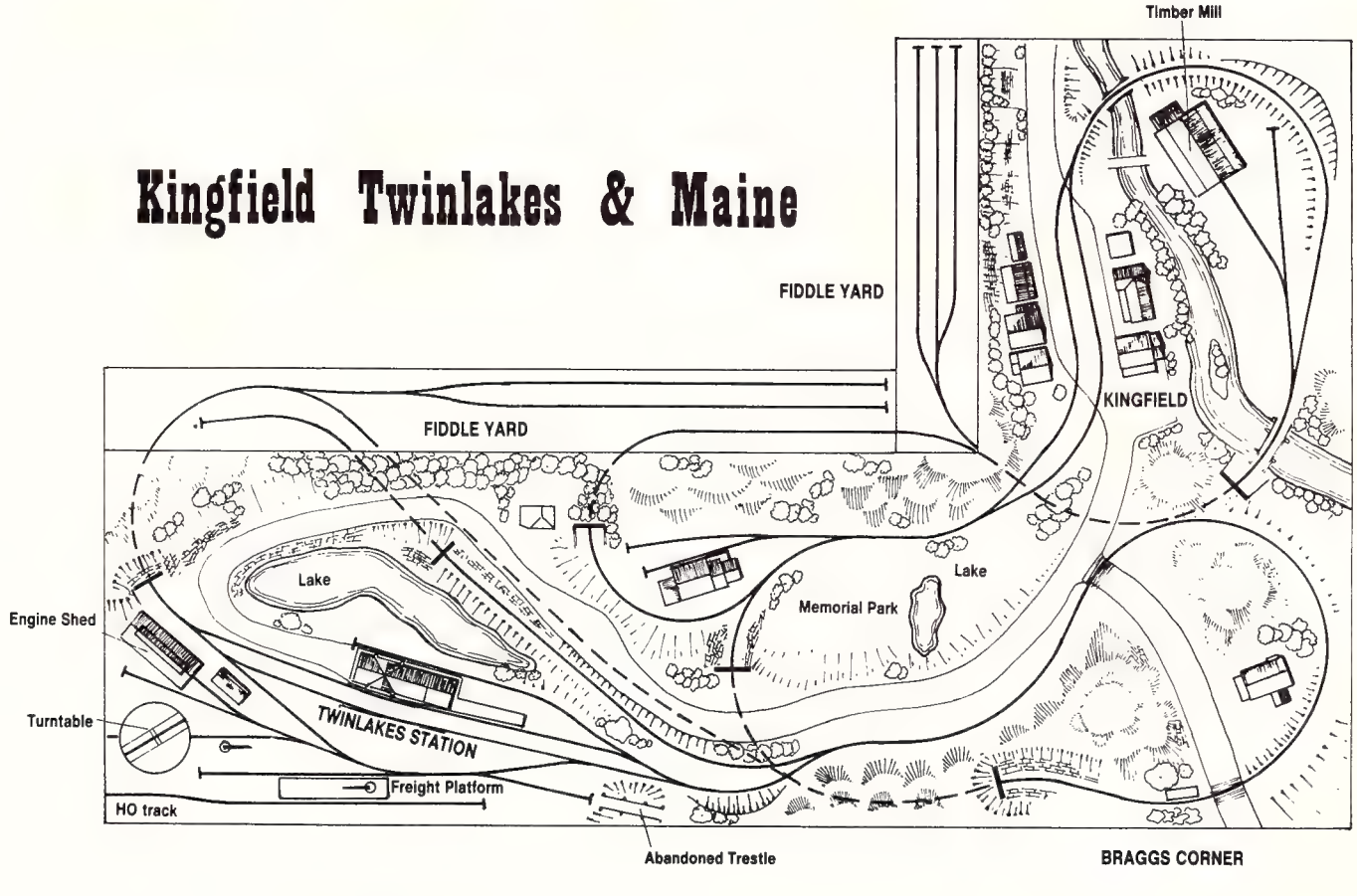
Doug and Marion had been able to secure a 3.0m square space at the 1981 Melbourne exhibition to promote their hobby business. The problem was how to fit a commercial dis-



No.22, No.34 and the Railway Express truck wait at Twinlakes Station for the wrecking crew to re-rail diesel No.34. Photo by Ian Thorpe.



Diesel No.34 is a kitbash of a Minitrix N scale Fairbanks Morse. Boxcar 124 is scratchbuilt. Photo by Ian Thorpe.



An early shot of the Twinlakes yard. Engine shed was a modified Pola kit. It has since been replaced with a scratchbuilt structure. Gondola 1c was based on an SP prototype. Model is almost entirely scratchbuilt (trucks, couplers, brake wheel and cylinder excepted). Contains over 400 parts. Side doors and locking bars all operate. Model won best freight vehicle category at 1982 AMRA Vic. Branch Exhibition. Photo by Doug Kelly.

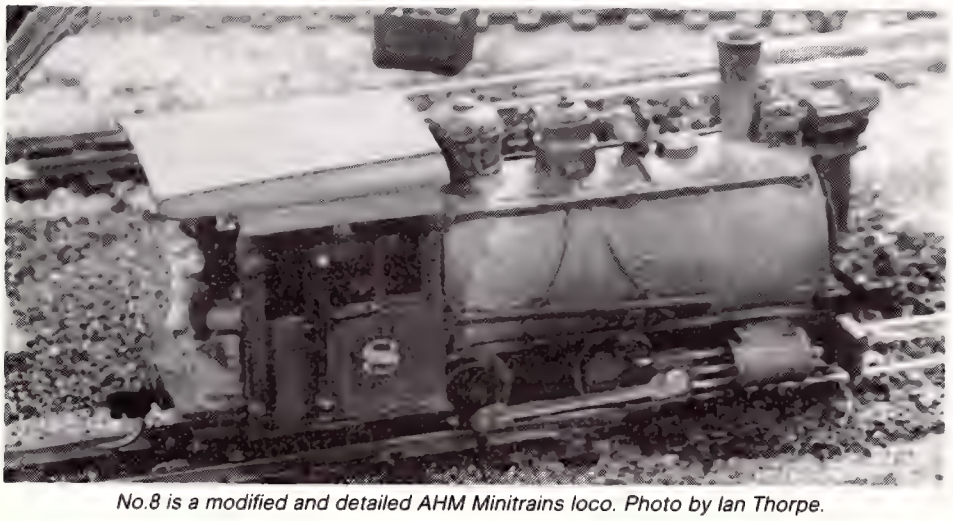
& Maine Railroad

Bragg's Corner is the most accessible (for public viewing) part of the layout. It is therefore the most highly detailed. The superb scenery by Rob King and Doug Kelly is most evident here. The railbus was constructed from a modified Tyco HO tram with a Con Cor Mack truck front stuck on. No.2 is powered by an N scale diesel mechanism. The cowcatcher is a piece of Atlas fencing. The figures are from Preiser, Merten and Campbells. The latter also provided the T model. Photo by Doug Kelly.

Twinlakes Station showing No.22 hauling the KT & M passenger varnish. Passenger car and combine were modified from Mantua HO kits. Photo by Ian Thorpe.

Gondola and water tank car are both scratchbuilt board by board. The coal tubs in the gondola can be removed and be replaced by empty tubes. Both models are extremely well detailed, including underbody details. No.22 is scratchbuilt from styrene using a modified N scale Rivarossi 2-8-2 mechanism. Photo by Ian Thorpe.

Twinlakes engine servicing facilities, oil and fuel depot, engine shed and turntable are scratchbuilt. Coal crane is from Mike's Models. Photo by Ian Thorpe.



No.8 is a modified and detailed AHM Minitrains loco. Photo by Ian Thorpe.

play, selling area and a top class layout into such a confined space. An HO layout meant small radius curves which are quite unrealistic, unless it is narrow gauge where sharp curves are not only realistic but desired.

The high cost of HOn3 equipment and various articles in U.S. magazines using N gauge equipment to construct HOn2½ models convinced Tony and Doug that HOn2½ was the gauge to choose.

Tony has a deep interest in U.S. narrow gauge railways and articles featuring the Carrabasset and Dead River (Model Railroader, January & February 1981) convinced both Tony and Doug that the setting and theme of their model should have been based on the narrow gauge railways of Maine.

A track plan for a Welsh narrow gauge layout published in an English magazine was adopted and suitably adapted to suit two 1.83m x 1.22m (6'0" x 4'0") modules, designed to fit on two sides of a 1.83m x 1.83m (6'0" x 6'0") selling area. Addition of hidden storage areas to the track plan provides for variation in train running. The track plan accompanying this article shows the final design of the very effective exhibition layout.

From the start Tony and Doug agreed that the K,T & M would be constructed as a joint effort. Tony concentrating on rolling stock and locos and Doug constructing the layout.

Construction started in August,1980 and the layout was ready to exhibit at the 1981 Melbourne exhibition, where it drew a great deal of attention. Improvements were made for the 1982 exhibition where it drew even more praise. This is a very fine example of all facets of the model railway hobby. Following are details of the model . . .

Baseboards & Trackwork.

Baseboards are constructed using the open grid method from quality pine timber. A Caneite track base was laid using plenty of vertical support which has prevented any sagging. Peco 9mm gauge HO scale track was then laid on the Caneite. Pins and glue were used to fix the track. Ballast was added while the glue was still wet. Excess ballast was vacuumed away when the glue had dried. The result; a very realistic and lightly ballasted trackwork.

Scenery.

Basic scenery is chicken wire covered with Modroc, a plaster impregnated cloth. A top layer of coloured plaster was then applied and the various brands of ground cover materials were added, using white glue to fix them. Rob King hand carved the striking rock cuttings and tunnels which are a stunning feature of the layout and Marion Kelly made most of the trees which are yet another feature of the layout. The effect of the scenery to the viewer is very noticeable. Viewers were drawn to the overall effect of the scenery only to find more and more little details to examine. Attention to detail and many small scenes make this layout the popular layout it is.

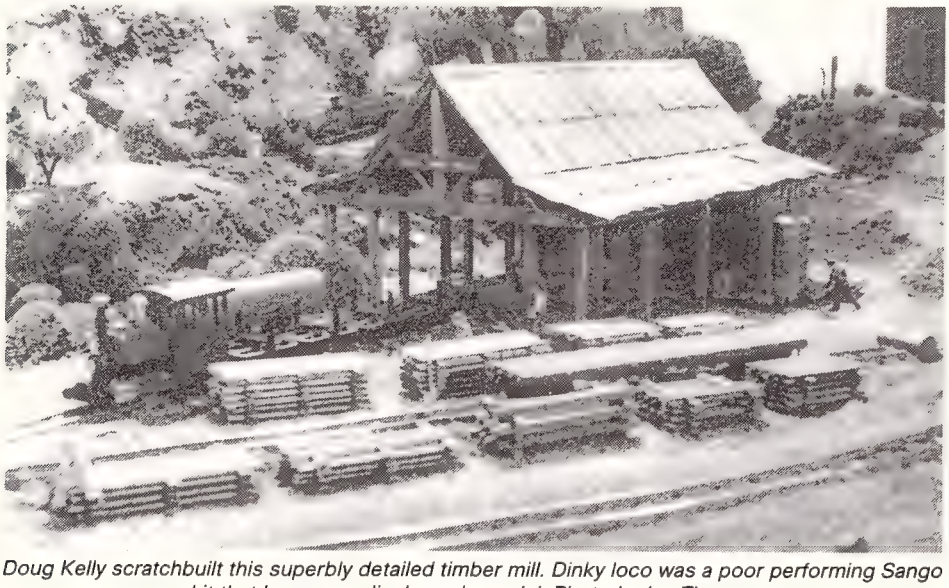
An interesting feature of the scenery is the water areas. The lakes are made from blue ripple glass and the river from casting resin. Tony related that the very effective river was really a mistake. A river bed was made with details like logs, weeds and rocks. The casting resin was then poured in — but no hardener was added! Although the final result is quite effective it should have been better.

Structures.

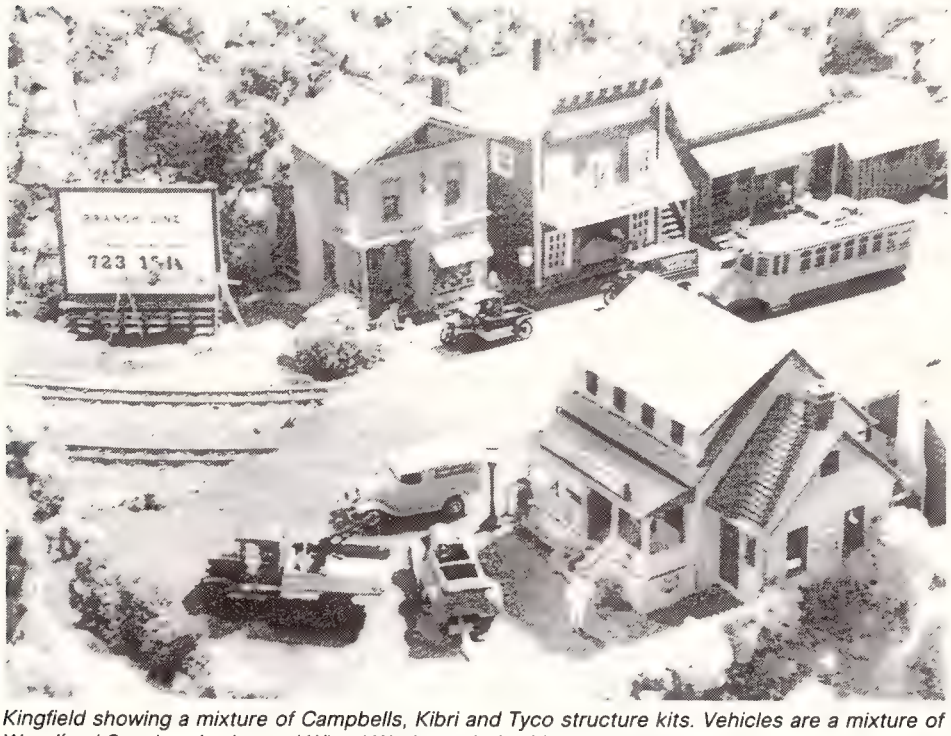
Another striking feature of the layout is the very good use of a combination of scratchbuilt and kitbuilt, both plastic and timber, structures. Rob King again assembled most of the structures which very effectively complement the scenery. Features of the 1982 showing of the layout were the scratchbuilt engine shed,

The Kelly Timber Mills is one of the revenue producers on the KT & M. Structure is scratchbuilt by its namesake. Highly realistic river is casting resin. No.22 is biggest piece of motive power on the road. Photo by Tony Walsham.

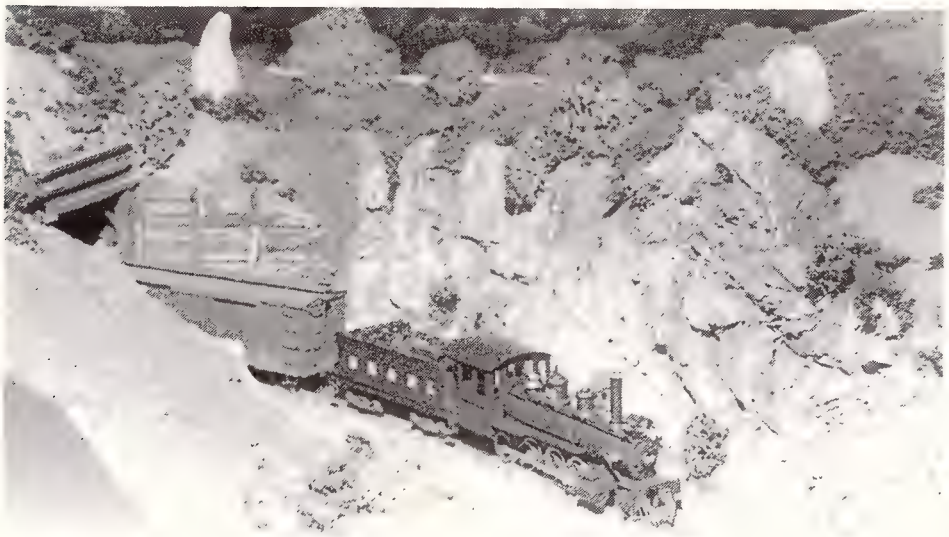
No.27 crosses the Megantic river en route to Bigelow. Loco has a scratchbuilt tin styrene) superstructure and render mounted on a modified Lilliput 0-6-2t mechanism. Stockcar is scratchbuilt to a Bellevue and Cascade prototype. Photo by Tony Walsham.



Doug Kelly scratchbuilt this superbly detailed timber mill. Dinky loco was a poor performing Sango kit that became a display only model. Photo by Ian Thorpe.



Kingfield showing a mixture of Campbells, Kibri and Tyco structure kits. Vehicles are a mixture of Woodland Scenics, Jordan and Wheel Works period vehicles and figures add the necessary touch of realism. Photo by Ian Thorpe.



Above: *No.23 a rebuilt HOn3 brass loco fitted with an N scale mechanism hauls a freight through the cutting hand carved from plaster by Rob King.*

Right: *Railway Express truck is a Jordan kit mounted on NWSL "flea". Front truck also has a inbuilt pick-up. This unit performs very well even at slow speeds. Photos by Ian Thorpe.*

fuel oil facility, ball signal and falling down trestle, all of which were scratchbuilt by Tony.

Blending of the structures, especially along the town street, into the railway scene makes this layout more than just a model railway. Most structures were selected from those available commercially with the aim of showing prospective buyers of kits just what can be done. It is a great advertisement for kit built structures.

Rollingstock & Locomotives.

Tony's rolling stock looks better and better the closer you get. Rollingstock is a 50/50 mixture of scratchbuilt and kitbashed vehicles. Freight vehicles, especially the coke cars and gondolas, are especially impressive. Constructed board by board from scale timbers, these wagons leave a lasting impression of neatness and impeccable modelling.

Tony has a huge collection of books and magazine articles referring to U.S. narrow gauge lines. It was from this collection of plans, photos and descriptions that he acquired his ideas for various wagons, many of which were intended for 3'0" or 3'6" gauge but have been adapted to suit the narrower 2'6" gauge. Rolling stock inspired from this sort of collection usually shows a great deal more inventiveness and artistry which modelling to a particular prototype doesn't permit. Narrow gauge modelling is particularly attractive in this sense, and Tony has taken wonderful advantage of not being constrained by copying a particular prototype.

No better example of this is the passenger rollingstock on the layout. Mantua passenger coaches have been chopped, lowered, shortened, and new windows and doors added to form a very impressive passenger varnish. A very effective railbus has been created by combining a Tyco HO tram and the front of a Con Cor Mack truck!

Locomotives are a mixture of kitbuilt from Sango, and scratchbuilt and kitbashed using N gauge mechanisms. Tony is not very impressed with the R.T.R. market in HOn2½, there not being a great range available to select from. Reliable N gauge mechanisms and other rebuilt mechanisms together with Tony's undoubted skill as "loco tuner" resulted in all locos running smoothly and with a reliability which belies their size.

All rolling stock is fitted with Kadee N gauge couplers which enhance appearance and seem to operate faultlessly.

Electric Control.

Simple dual cab control operation controlled by DPDT switches was considered adequate, power being supplied by the very reliable H & M Duette. Separate control in Twinlakes is available with another H & M controller. All turnouts are operated by Peco point motors with a capacitor discharge power supply. Trouble-free operation at an exhibition is essential and this system works extremely well.

Continued on page 26

The dream of an operating layout — long runs, big bridges and realistic scenery. Another necessary ingredient is good running, and this can only be accomplished by accurate trackwork and the correct matching wheels. The Poverty Point & Blood Creek Railroad is one layout that rarely sees a derailment. This article describes one of the reasons on how excellent running was obtained.
Illustrated above is a B Class Shay at the head of the local pickup on Old Ned's Trestle which spans Barhon's Gorge. The pickup is on its way to Mount Florance.

ONE MAN'S WAY

On Rolling Stock — Wheels, Ramps and Running

by John Burgoyne © 1983

There's more than one way to skin a cat. Whichever way you choose, puss still loses her fur. So when we say that This is One Man's Way, that is exactly what we mean. Even though we've been skinning a whole miaow of cats for thirty years, our way is not Holy Writ. It is not necessarily the best way for anyone else. It just happened to work for us.

* * *

The Poverty Point & Blood Creek is a freelanced HO medium to large rail transport system with 4½ scale miles of mainline, two major termini, one minor division point, three towns and two major but difficult sidings.

It serves three cities of 4,000, 20,000 and 40,000 inhabitants, a seaport and large inland freight catchment area. There are about 40 industries that all require switching.

The weekly workload includes two mainline express freights of up to 25 cars to be assembled, two more to be broken down and internally switched, two local, way or pedlar freights to be made up and broken down plus the handling of at least two unit trains and the occasional passenger trains, all within the terminus yards.

Add to these the minimum of two pedlars working the 40 industries in the six on-line towns and sidings, most of which have been made deliberately difficult to reach for re-railing or nudging a stalled locomotive, and you have a situation in which it is imperative that all equipment should operate as faultlessly as possible.

These are the factors that sent us in search of the best available equipment, even though it meant having less of it. In rolling stock terms this meant trucks, couplers, uncoupling systems and car weights. It also meant paying more for trucks and couplers than for the cars that wore them. It has meant buying only one car when we could have afforded two, but with the consequent satisfaction of having one beautifully behaved and trouble free car rather than two that gave only spotty performance.

In turn, the maintenance time thus saved became available for further layout construction and detailing. We believe it is a good way to go.

Couplers & Uncoupling Devices.

For twenty years we have used the Kadee system, with no ramps at all on the mainline. The prototype mostly uncouples manually. On our mainline, so do we, using an effective little coupler parting tool mounted on a penlight torch and, on a grade, the Snape's Patent Brake. The S.P.B. is a pin bound to a rod that goes between the cars, sticks into the roadbed and prevents the trains from rolling away while the crew gets on with its switching.

For yard work — all our yards are flat — we found the between-the-rails ramps to be 95% effective in operating the delay feature of Kadees and much less forgiving of slight coupler mounting inaccuracies than the below-the-rail ramps. The below-the-rail ramps are so dramatically better that, though a little dearer, we eventually installed them and coupler operation is now faultless.

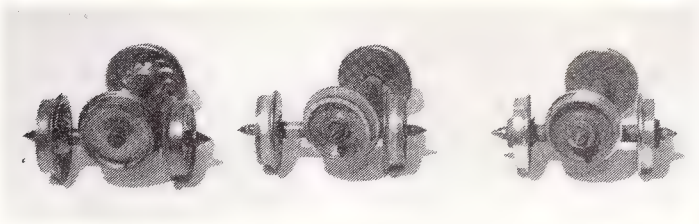
But they introduced a new problem that took a lot of experimentation and work to overcome.

Wheels & Trucks.

Very early we discovered Central Valley CV3 trucks. The original steel axle wheelsets are still, in our experience, by far the truest wheelsets we have ever seen, and our problem rate arising from insulation failure was only two axles in more than two hundred 1%, which is excellent for mass produced items from automatic machinery.

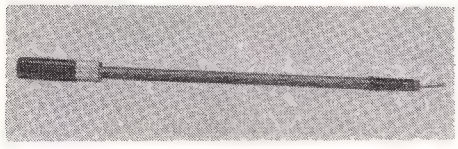
With the installation of the below-the-rail magnets though, the free rolling characteristics brought a new and severe problem as the magnet grabbed the steel axles and dragged the cars over the ramp to a point at which the couplers closed again, making the delayed action benefit inoperable. The whole system ground to a halt.

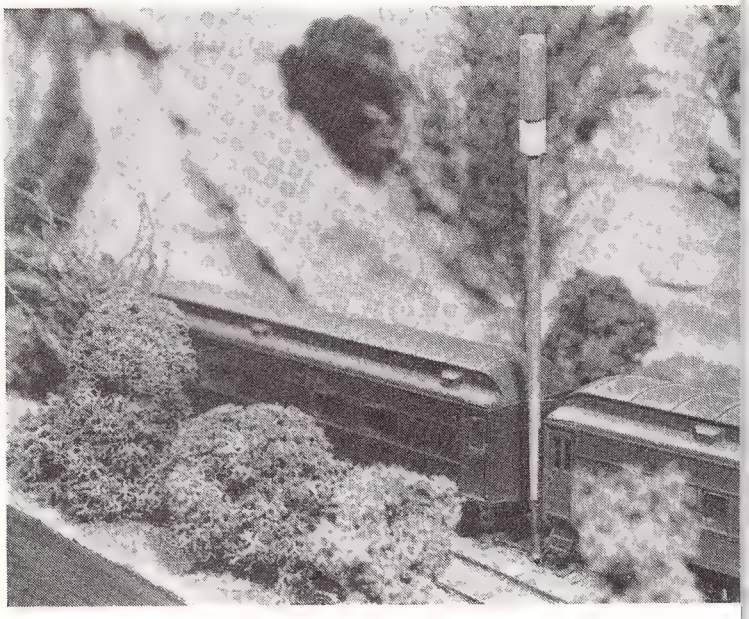
We investigated all the non-magnetic RP25 trucks on the market. Those with slippery plastic sideframes were too slick, did not allow the couplers to couple as the cars slid away at a breath. Most of the others had so much friction compared with the CV3s that they reduced train lengths by up to 50%. None of them had



Wheels — the subject of this article.
On the left is a standard RP25 profile wheel, in the centre is the Central Valley CV3 wheelset, while on the right is the Central Valley CV4 wheelset. The difference in tyre width can be seen in this photograph.

Snape's Patent Brake. This fancy little tool is illustrated below, while the photo on the right illustrates it being fruitfully utilised on the steep main line of the P.P.& B.C.





the perfect compromise of enough inertia to allow ready coupling without moving the car, and the freedom of rolling characteristics with good weight and soft springing that had made CV3s so popular for so long.

The brass axled CV3s had become almost impossible to obtain in my part of the country and we were in a quandary whose resolution seemed to be to downgrade standards.

Then we read a review of Central Valley's new CV4 Fine Line of wheels. In desperation, we wrote direct, sent a $20 draft. John Parker, the new owner, despatched several trucks on the same day as he received our money.

We installed them, thrashed them around the layout just as they came from the packet. They were superb. CV has had its difficulties, but in these CV4s John seems to have solved the problems. We had to have them.

So now what about our devotion to RP25-only as the best operating wheel profile available? These CV4s are 25% narrower in tyre tread, a whole 32% shallower in flange depth. That's RP25? Sure, these wheels have been around and operating marvellously for 20 years in CV narrow gauge trucks, but RP25 is RP25.

As usual, the taken-for-granted assumption did not stand up to a little research. We discovered that, though for years the various manufacturers have been producing an RP25 wheel, there are, in fact, several different wheel standards within N.M.R.A. Recommended Practice No.25, and that which the trade has come to use is the coarsest of the allowable specifications.

More correctly, these should be described as Code 110 of the RP25. Code 88 of the RP25 offers a different set of wheel dimensions. The CV4s take it even further. While not strictly adhering to any of the Codes within RP25, the CV4 does conform to the all-important back-to-back and axle length measurements, but it has a better pinpoint shape and considerably improves the profile, especially in the cone taper of the wheel tread and the greatly extended fillet radius between flange and tread.

This fillet shape is not the single radius of the regular RP25 wheels. It is a compound curve that is visible to the naked eye and is the secret of its superb rolling and track-keeping performances.

Compare these dimensions for the wheels in Table 1.

TABLE 1

	RP25 Code 110	CV3	RP25 Code 88	
Flange Depth	0.025"	0.025"	0.020"	0.0
Tyre Width	0.110"	0.110"	0.088"	0.0

True Fine Scale requires that the track dimensions as well as the wheels should conform. This does not fit the practicality that almost all model layouts are built to the N.M.R.A. track dimensions. They already exist and to bring them to Fine Scale tolerances means scrapping the lot and starting all over again with hand built track. With the majority of layouts built with some form of ready-track and with no availability of Fine scale ready-track,

P.P.& B.C. N2441 heads the local passenger train westward through mountainous scenery toward Blood Creek. All coaches are fitted with Central Valley CV3 wheels which reduces the friction of the standard wheelset and enhances trouble free running. The scenery was formed by rock castings and the trees formed from lichen.

such drastic surgery will rarerly happen.

Fine Scale wheels simply do not run well on N.M.R.A. gauged track, but these new CV4s will. It seems to us that John Parker has brought HO wheels as close as it is possible to get to Fine Scale and still operate reliably on N.M.R.A. track. And they are most reliable.

The narrower wheel tread does demand that track gauging should be accurate, for they quickly discover and derail on even slightly over-width track. Which is fair enough. Our hand laid track should not have been over-wide in the first place. They detected flaws in four turnouts and seven spots on plain track which the over-wide Code 110 wheels had glossed over.

The construction of these wheelsets is brass axle with finer pinpoints than regular N.M.R.A., with the brass axle points rolling in the regular CV metal side frames. The wheels are bright plated. One wheel is mounted directly on the axle, giving a live contact and truer centreing. The other wheel is separated from the axle by a plastic bushing that eliminates all risk of shorting that occasionally occurs with the varnish insulation as used in the old CV3s and many other metal wheel sets.

We had no problems of concentricity.In the couple of instances where this seemed to occur we traced it back to an off-centre pinpoint on the axles — something we have discovered in all other brands we have tried.

However, we did have a very few problems of alignment of the insulated wheel. If we have a suggestion it would be for CV to use a more rigid plastic in this bushing to eliminate distortion due to the softer plastic moving during factory assembly, but to retain the present structure in which the brass axle goes right through in one piece to both axle boxes.

To put this small and occasional deficiency into perspective —

1. We have yet to see brass axled wheel sets from any manufacturer that are as uniformly true as were those old steel axles of CV. Maybe it is in the nature of the material.
2. The worst of the CV4s was still better than its various competitors whom we tested. It was correctable, and John Parker has offered to replace any defective items.
3. In any mass produced mechanical item from automatic machines, it is naive to expect 100% perfection. A rejection rate of 3% — 5% is well within acceptable limits. In fact, we eventually set aside the purchase of a covetted locomotive for which we had saved for a long time and bought 100 pairs of trucks and 50 sets of wheel replacements 600 axles and 1200 wheels. To date, we have had 8 faulty axles (2 misaligned and 6 rounded off axle ends that should have been pinpoints) 1.3% imperfect rate, and 9 wobbly wheels 0.75% imperfect rate.
4. That left 592 of 600 axles and 1191 of 1200 wheels well within acceptable limits.
5. These acceptable trucks outperformed even the old CV3s by up to 20% increase in train lengths behind the same locomotives up the same grades.

After thrashing the original few pairs around the layout, we syndicated to buy the first 100 pairs of trucks. Central Valley deal direct and the Parkers gave us superb service, each time shipping the same day as they received our banker's draft.

Ten days after posting our letter we had the trucks and, in 100 pair quantities, landed them at a cost of $3.29 Australian per pair. This included bank charges, Customs' duty, sales tax, air freight and packaging. The 50 packets of wheel sets (4 axles per packet) that we bought later arrived for around $2.00 per packet, everything paid as before.

We found that these plain wheel sets worked extremely well in most makes of side frames to N.M.R.A. dimensions, provided they were properly sprung and equalised. Rigid side frames or those made rigid by overly strong springs, and old time side frames with non-tapered journal holes are not for CV4s. But, then, they're not much use for anything else, either.

Near the top of the grade P.P.& B.C. No 2 heads a local delivery while below the silence is broken by an ex Northern Pacific Yellowstone blasting its way out of the tunnel. The P.P.& B.C. has 4½ scale miles of mainline track which rises and falls over steep grades. Trouble free running and realistic train lengths is obtained by free rolling equipment and hand laid track.

Now we had the best tracking and rolling trucks yet on the P.P. & B.C., but there was still another problem, this time an aesthetic one. These wheels are bright plated all over and the axles are bright brass. They looked odd in weathered side frames.

Painting.

We are not fans of chemical blackening for a variety of colour and density control reasons, especially when the item to be blackened has mixed metals such as brass axles and chromium or nickel plated wheels, and where we want partial blackening with the tyres left silver and where we also want to weather over random parts of the blackened areas.

Yet, to hand paint 600 axles 1200 wheels was just not on.

So we disassembled the trucks — it's easy to do, one flick and they're out — and placed the wheels on lengths of masking tape, sticky side up. This wonderful old trick for spray painting small items worked yet again as we sprayed the wheelsets from every angle with Floquil Weathered Black, Rust and Dirt.

We let them tack dry, then slid a length of stripwood between the tape and the axles, placed a second length of masking tape over the top, turned the whole lot over, used the stripwood to hold down all the axle sets as we stripped the old tape away and then got on with spraying from that side.

After a day to dry, we cleaned up the axle points by twirling them in an old and hard Peco track cleaning block until they were bright, did this at odd times and in small batches to avoid tedium. Then we installed them back in their trucks after first filling each of the journal boxes with powdered graphite, then mounted them on the cars.

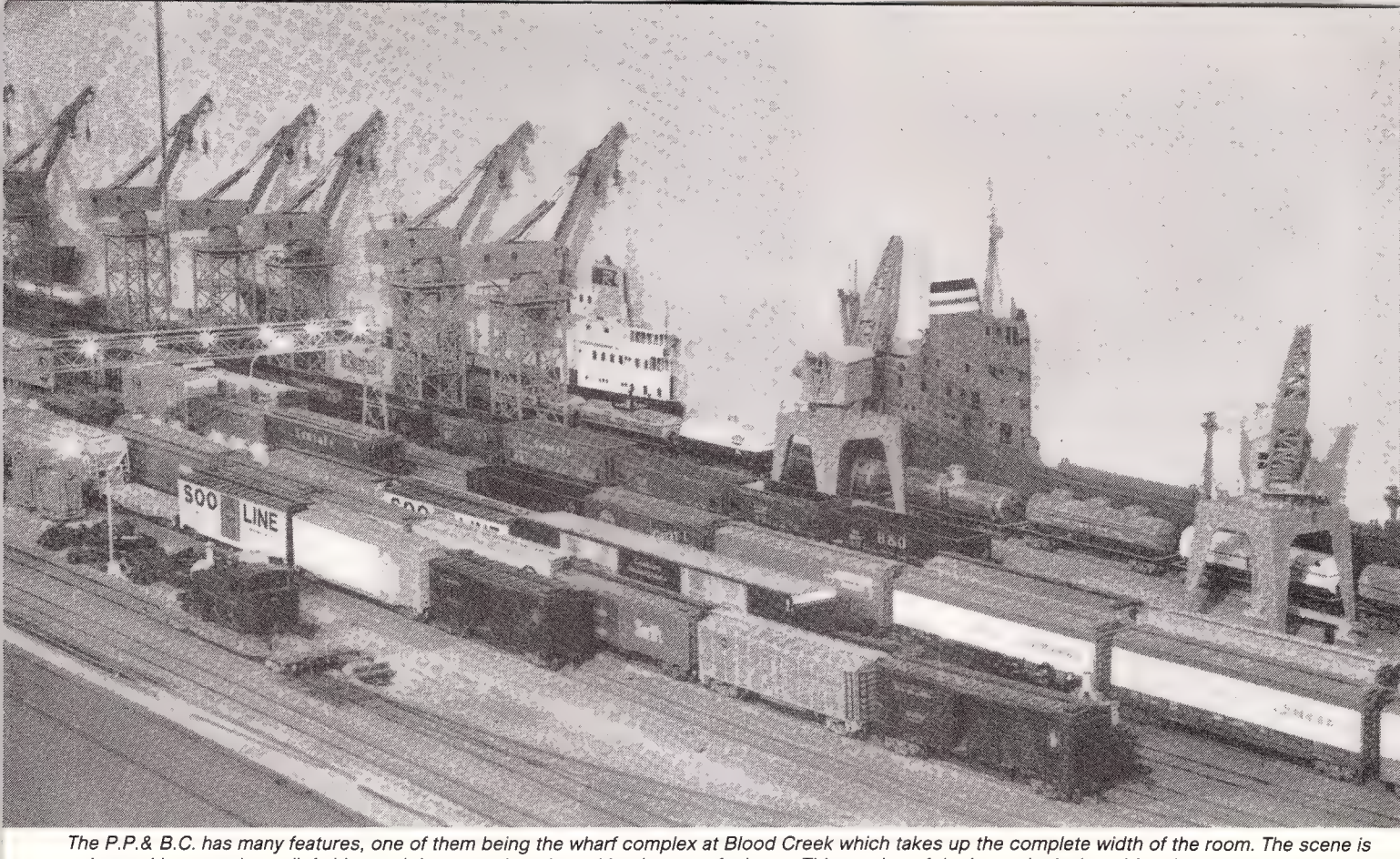
The worst of the work was behind us, the fun part lay ahead as we reckoned that a few laps of the track would soon clean up the painted tyres. This painting and reassembly was a breeze.

The hell it was!

First run, and bumpitty bump, all the trucks derailed. They worked fine on the plain track, but at the first turnout, off they leaped.

Cec and I spent a couple of hours on that turnout, but it checked out perfectly with the N.M.R.A. gauge. Just the same, we resoldered and realigned it, but still those god-blasted CV4s kept coming off.

It was a curved turnout, but every turnout has a curve, and those sample CV4s had had no trouble. Of course, they had not been painted, but everyone knows that Floquil pigments are so marvellously fine screen that they



The P.P.& B.C. has many features, one of them being the wharf complex at Blood Creek which takes up the complete width of the room. The scene is enhanced by some low relief ships and the scene lengthened by the use of mirrors. This section of the layout is designed for shunting and making up the lengthy trains for Poverty Point.

could not modify the wheel shape.

Just the same . . .

We cleaned off the wheel treads on a couple of trucks and ran them through the turnout. No problem. Cleaned of half a dozen more that, already mounted on a variety of cars, had all derailed.

Every one of them ran right through that turnout as though it were plain track.

Clearly, the problem had arisen from the friction of the paint's matt finish that eliminated the ability of the wheel profile to slide away from the track head. Prototype and all RP25 and better wheels do not roll against their flanges. The cone taper of the tread, acting under the weight of the car, centres them on the rail in a similar action to that of the camber on a motor car's wheels. It takes a lot of lateral thrust to move the flange against the rail. Long before it gets there, the cone taper steepens into the fillet radius between the tread and the flange. This accentuates the sliding-away-from-the-rail action that keeps the wheels centred, and it takes a very great deal of force and friction between wheel and rail to offset this centring action.

Prototype wheel treads, flanges and rails are always shiny from this constant sliding motion that keeps the friction between then almost negligible. What works in macro also works in micro. That smooth plated surface of the CV4s is plainly not just cosmetic. It is an essential functional component of their design.

Now we had to clean the paint from 1200 wheels.

You want efficiency, hire a lazy many. We found a solution that reduced the job to a matter of seconds per truck, yet did not damage the paint job on the rest of the wheel.

With the truck assembled, we used a pipe cleaner dipped in acetone. Because acetone and most other solvents are severe lung corrosives that should never be used without perfect ventilation, we did this job outdoors, enjoying the sun with our backs to a light breeze.

We held the acetone laden pipe cleaner on the wheel tread, ran the truck six inches each way, and it was done. The bright silver tyres and flanges on blackened and weathered wheels and trucks look great.

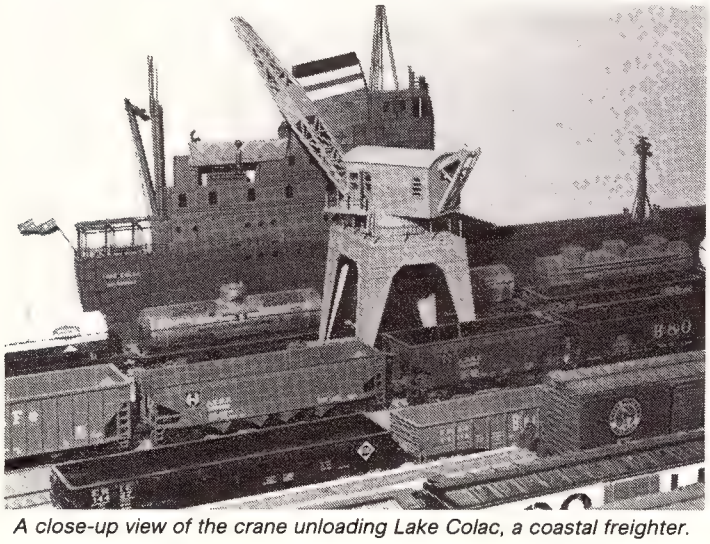
Running & Rolling Capacity.

Our worst grade is 1½ miles at an average of 2% that peaks at 3% just where the locomotives need it least. Our cars were weighted to N.M.R.A. specification but now are about 50% over the limit at between 5½ oz. and 6½ oz. each.

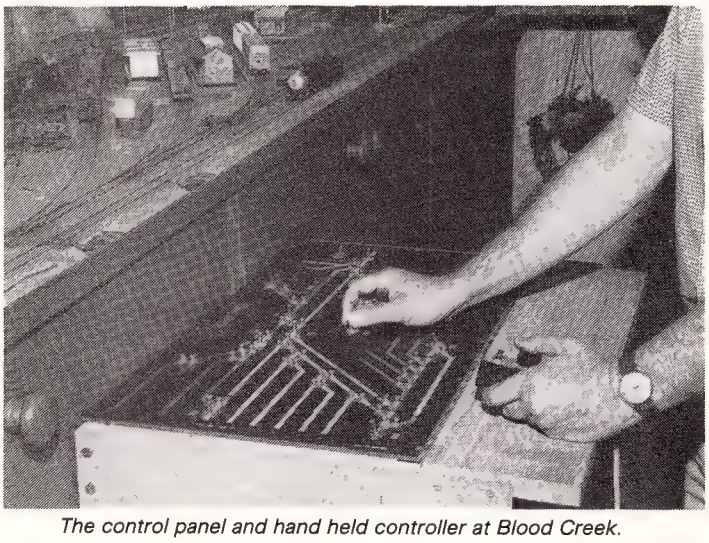
Singly and in cuts of up to 50 cars and running free, everything ran faultlessly down through three facing and three trailing turnouts and around 42" curves, reached a speed in excess of 300 scale m.p.h. and ran up the other side to about three feet beyond the best achieved by the CV3s. On the same grade, none of the popular all-metal brands would start from rest, let alone run freely once started.

Intrigued, we then did comparison runs uphill, and found almost 20% increase in train lengths for the same locomotives. We checked and re-checked and kept coming up with the same result.

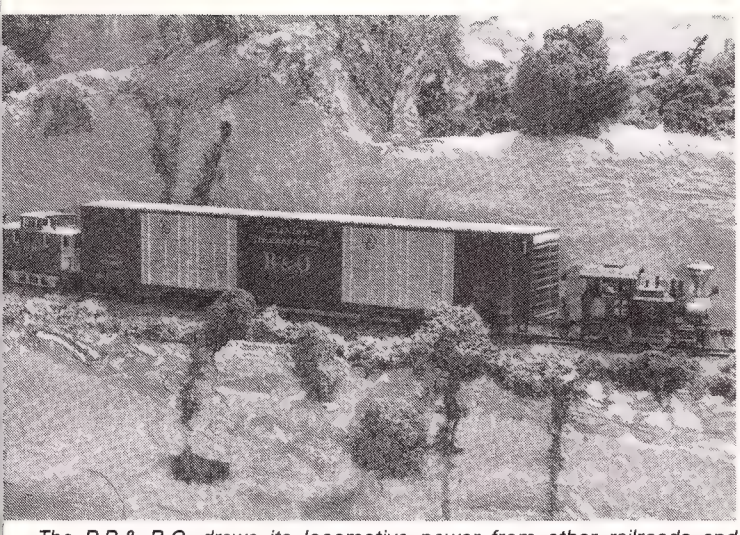
Downhill the freedom of running led to the



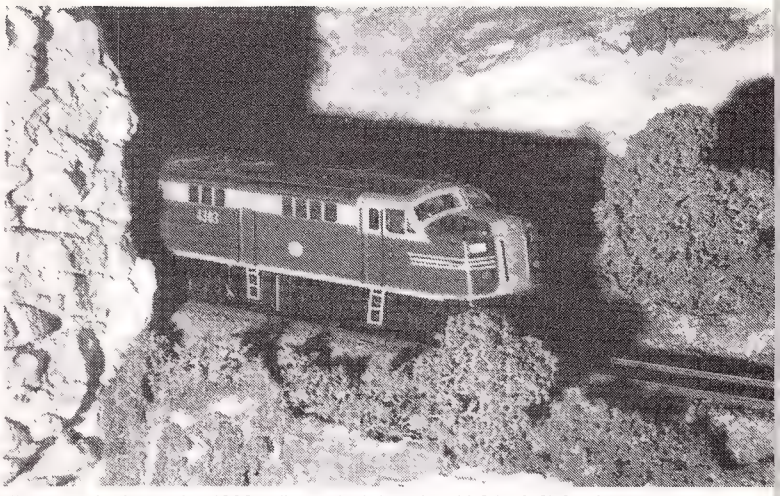
A close-up view of the crane unloading Lake Colac, a coastal freighter.



The control panel and hand held controller at Blood Creek.



The P.P.& B.C. draws its locomotive power from other railroads and utilises its loco roster to its utmost. Illustrated above is the 'Bobber' on a local delivery, easily coping with the steep grades and the heavy load.



Illustrated above is 4303, discarded by the N.S.W.P.T.C., being road tested in the late afternoon before being rostered for duty on the steeply graded main line. 4303 is not the first Australian locomotive to be used on the P.P.& B.C.

same kind of surging that we had had with the CV3s behind some, though not all, locomotives. This is a separate problem with which we're still wrestling.

Though we applied every stress known to us, these CV4s came through as the best profile by far that we have yet seen.

Of course, they are a little harder to put on the rails, thanks to the shallower flange, but, then, they seem to be harder to derail, too, provided the track is properly gauged. And provided it is clean. Again because of the shallower flanges, any build up of gunk and goo has an effect a little quicker than with Code 110 of RP25 wheels, but the plated treads make cleaning easier, too.

The real test, though, is not on plain mainline operation. It come in the yards with the constant running through curves and turnouts.

Switching Capacity.

Provided the trucks are mounted so as to have a minute amount of side play and are of sufficient weight to activate the beautifully soft CV springs,these trucks equalise like a dream. From them we have had perfect switching, but they do require a modification of throttle technique in many crews.

Because of the profile as well as the needle points of the axles, they roll so well that they can quickly get away from the Harry Hotwheels among our engineers. Clumsy throttle handling or roughly running locomotives see the cars getting away from the switcher and running on to make unintended couplings further up the spurs or yards. As a result, a single sloppy movement can become half a dozen extra movements that cost not only pride but time which is always at a premium in operating sessions.

Due to the placement of the ramps in some of the tighter yards, only one car at a time can be switched. Where two or more cars become coupled in the body tracks beyond the normal reach of the manual uncoupler, this leads to a situation in which our Marshal has to open access hatches and handle the equipment.

In these cases, he piles up the demerits on the crew. It is remarkable how much closer to scale speeds our crews now work. And how much longer our couplers last before needing maintenance or even replacement.

Gremlins.

With non-magnetic trucks on all cars, we should have seen an end to the running on of all cars past the uncoupling ramp with the consequent closing again of the coupler jaws.

Wrong again.

Unbelievably, almost all the non-magnetic truck equipped cars still ran on, if a little less rapidly, past the ramps.

Closer examination showed that some cars were affected, some were not. Then we found the answer.

The cars still responding to the ramps were all the Athearn and a couple of old timer lithoed tinplate treasures, plus some Ulrichs. They all had one thing in common — a major iron or steel component in their construction.

The Athearns were especially susceptible. The steel weights mounted between the underframes and the floors were being grabbed by the powerful under-the-rail Kadee ramps and pulled forward. The only exceptions were the tank cars where the weights, being higher, were further outside the ramp's magnetic field.

The CV3s and especially the CV4s were operating so well that they allowed the cars to move even under this light magnetic influence, while the other makes of non-magnetic trucks had enough friction to resist the pull. We reckoned that 80% of the problem arises from steel axles, and 20% from ferrous metal used in weighting or construction.

That was one hell of a job — throwing out the steel Athearn weights and replacing with the kind of strip lead used by plumbers and roofers.

It also increased the weight of the cars. At first we thought that this would be a bad thing, but again experimentation showed that the weight of the car is of much less importance than the trucks on which it runs.

With approximately 50% more weight in the cars we suffered less than 5% loss of train length on the 2% grade with both CV3 and CV4 trucks, but still with the CV4s giving us approximately 20% improvement in train lengths over the CV3s and 100-200% over many others.

Again, with all the other factors of side frames and pinpoints being equal in both trucks, it has to be a matter of the diminished rolling friction arising from the way in which the wheel profile meets the rail.

On all the cars up to 50', the influence of the extra weight led to better tracking, better equalisation, all round better performance in coupling and uncoupling, and the very slight loss of train length was more than worthwhile.

In the 85' cars, however, the weight of between 7½ and 8 oz. began to be felt. They still roll beautifully, but not quite as freely as the shorter, slightly lighter cars. The impact of the extra weight seems to double the friction on the bearings, leaving us in a quandry not yet resolved, and a weight threshold of 6½ oz.

All 85' cars have considerable overhang caused by the distance between the truck centres and the coupler faces. On tighter curves this often can lead to tilting and derailments. The 7½ — 8 oz. weighting seems to overcome this leverage problem, but at the cost of slight loss of rolling capacity.

Question — do we bring the 85' cars back to the apparently ideal weight of 6½ oz. and restore the missing 10% of rolling capacity, or do we accept this slight loss as the small price to pay for perfect tracking in trains of cars of mixed length where 85 footers have been known to lift 40 footers off the track in really tight curves? Especially when couplers are slack as in downhill running and in backing up through the inevitable S-curves in yards?

We think we shall be deciding on the retention of the weight.

Summary

The years of operation have taught us the necessity of having uniformity of performance in couplers, trucks and weighting, that the car, no matter how beautifully detailed, is no better than its running gear.

We already had the uniform weight, have retained the ratios even though we have increased the weights. We already had uniform couplers and ramps in Kadees. Both these items are part of cars that operate.

We had uniformity of trucks with 100% CV3. The cost of converting to CV4s was that of a new brass locomotive.

Our testimonial to these CV4s is simply that — we reckoned on experiment validated by subsequent experience that total replacement was worthwhile, even if we shall now never own that locomotive that we so covetted. Why?

Appearance - the closest we are ever likely to see a scale wheel on N.M.R.A. gauged track. They are beautiful.

Operation — both CV3 and CV4 gave us utterly reliable operation, but the CV4 gave increased train lengths that we estimate to be 20% more than any wheel we have encountered in metal, and that leads to improved locomotive performance in all the train lengths, from single cars up, that we like to run.

Quality — is as good as we can reasonably expect in a mass produced item from automatic machines and involving a certain amount of hand work. The imperfect rate is very low, is mostly readily correctable, and Central Valley stand right behind their product. The quality is at least as high as that of any of its competitors, and it is a lifetime product of all metal where it counts.

A Plus — is the sound of metal rolling on metal

and clicketty-clicking over the rail joints. There are few things in the hobby more satisfying. Prototype wheels are metal. So are these. They have a "rightness" possessed by few others.

Price — Central Valley deal directly by mail order. A banker's draft or cheque has brought us despatch on the same day as the money is received. Of course, the cost will vary slightly with the rate of exchange, but in the 100 pair quantity that we syndicated, the list price is U.S. $2.45 per pair and we landed them at Aust. $3.29 per pair, all charges, duties and taxes paid. The full price list and catalogue is available in return for an International Reply Paid Coupon to cover postage by airmail sent to:- Central Valley Model Works, 13000 Saticoy Street, North Hollywood, Ca. 91605, U.S.A.

The single pair price is U.S. $4.00 per pair for freight trucks reducing to U.S. $2.10 per pair in 200 pair quantities. The range for passenger trucks starts at U.S. $6.00 to U.S. $3.15 for four wheel trucks and U.S. $8.00 to U.S. $4.15 per pair for six wheel trucks. Wheel sets, 4 axles per packet, start at U.S. $2.25 to U.S. $1.00 per packet of 33" wheels and U.S. $3.75 to U.S. $1.50 per packet of 36" wheels.

Packaging, shipping and duty and taxes are extra, but the landed cost is still more than competitive with other trucks on the Australian market.

Range — the range of trucks is extensive embracing AAR (Bettendorf), two roller bearing and an archbar style plus two Fox trucks, thus covering almost every era of truck use. The archbar and the Fox trucks are on a reservation basis with only occasional production, but the others are freely available.

This range is important because it permits standardisation of truck performances across all the eras likely to be modelled. The passenger trucks offer three 4 wheel types — Rivetted Frame, Standard Frame and modern Streamliner — plus two 6 wheel types — Rivetted Frame and Cast Frame.

Two other items expand the range — investment cast side frames for display models, and locomotive pilot truck wheels in 33" and 36" with axle points machined away and the wheel hub narrowed to the same width as the rim, these wheels at U.S. $2.50 per axle.

All these items are available in CV3 or the Fine Line CV4.

This is a fine range, but don't take it just on our say-so. Why not do as we did and send a $20 draft across with a request for the catelogue and as many and varied truck types and wheel styles as that $20 will buy, then try them out for yourself?

Within two weeks of sending that draft you can find out all you want to know in practice on your own layout.

Post Script.

As always when commenting on a manufacturer's product, I sent a copy of this piece to John Parker. In reply, he makes several points that should be read in conjunction with our comments:

"About the pinpoints — you might like to know that the pinpointing machinery for axles has undergone its evolutionary developement and is now producing more concentric, more consistant axles than the samples you were using. Part of the problem was the two small bushings that revolve around the axles during machining wear oversize at a fairly fast rate and must be replaced at earlier intervals than originally envisioned.

"Also, wheelsets sold unmounted are not 'roll' tested in truckframes, so wobble defects and the like are not detected in those populations. As you point out, we are willing to replace such defects.

"Para 4 of your text tends to indicate that CV3 RP25 wheels are not available on solid pointed brass axles. Not so — they have been available longer than CV4 and still are." ▪

All photographs by Bob Gallagher.

Kingfield, Twinlakes & Maine Railroad.

Continued from page 20.

The K.T.& M. Railroad is a complete model in the sense that all the facets of modelling a railway system are covered, with flair and expertise.

Interest generated by this model, both at exhibitions and at Doug's shop where it is displayed, has prompted the formation of the Croydon Narrow Gauge Group which is in the process of building a new HOn2½ modular layout, and to quote Tony "it will be a show stopper". Further details regarding this very informal group can be obtained from the Branch Line hobby shop.

Finally, the K.T.& M. Railroad is well worth the trip from Sydney to Melbourne. ▪

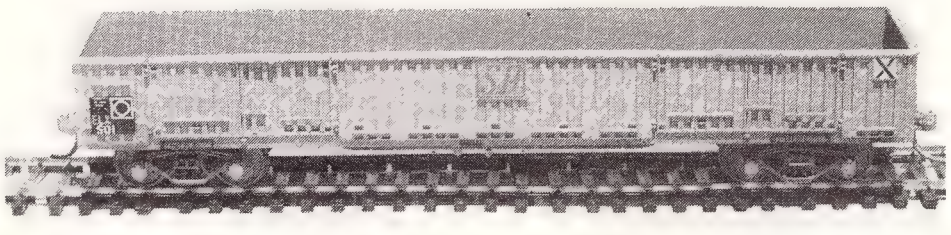
CAN YOU HELP?

For the preparation of future articles, we require information concerning the following classes of NSW rolling stock, and would be pleased to hear from any reader possessing the relevant data.

- LHO Passenger Brake Vans — colour scheme, lining style (if any) and logo (if any) carried by LHO.1618 prior to its recent repaint in "rainbow" colours.
- Comeng Double Deck Suburban Electric Power Cars — position of the logo on Nos. 3828 and 3844 if these cars are currently painted in the deep red livery. Is the logo only at the driving end of the vehicle or at both ends?
- Comeng Double Deck Suburban Electric Trailer Cars — description of the logo carried by cars 4944.45.46.48.49.50.
- Tulloch Double Deck Suburban Electric Trailer Cars — position of the logo on the following vehicles painted in deep red livery: 4801.05.06. 14.16.18.22.31.32.37.38.49.68.70.72.85.93. 4902.13.16.18. Is the logo at the centre of the carriage or at both ends?
- NRY/NRNY Refrigerator Cars — logos and codes currently carried by cars 22701.03.04.05. 06.07.08.09.12.13.14.15.16.17.18.20.22.23. 24.25.26.27.28.29.30.

Please address data concerning these topics to the project co-ordinator, Paul Rogers, PO Box 235, Matraville, NSW 2036.

ADDENDUM ELX-SGX KITBASH or TIPS ON LATHE OPERATION.



ELX 501 has been completed, using BGB decals, since publication of the conversion article in the October 1982 issue.

For those readers interested in lathe operation and other functions including milling as used in that article, there are several books that may be of interest. MAP (Model and Allied Publications) produce a range of magazines for model engineers featuring hand fired steam engines, mechanical clocks and similar items.

For many years contributors told of their experiences and methods used on small lathes such as the Unimat. MAP have combined many of these articles by Rex Tingey into a book 'Making the most of the Unimat' which includes many modifications that can be made on the SL model used in my article and the more modern model 3. Most of these fittings are made on the Unimat itself and so a detailed description of each function is included.

More basic books on how to use a lathe include 'Using the Small Lathe' by Mason and 'Lathe Accessories' by Westbury, both published by MAP. The South Bend Lathe Company of Indiana produced 'How to Run a Lathe' first published in 1914 and reprinted 27 times since then. This is written for large industrial lathes but the principles remain the same.

If you want to look at these books your local library would be a good starting place as well as technical bookstores in major cities. To go a step further make enquiries at your local adult education centre for night courses. ▪

Phil Curnow.

Modelling Queensland Railways in Sn3½ . .

Continued from Page 15.

modelling tips, jigs and moulds, etc. — no matter what prototype or scale but especially within the popular Q.R. scales (TTn3½, HOn3½, Sn3½). By sharing problems, experiences and ideas, costly and time-consuming mistakes can be prevented. With 3'6" gauge modelling in any scale, considerable modifying and scratchbuilding is necessary, but with modern styrene and casting methods, skill needed, time spent and cost is reduced.

All Sn3½ modellers enjoy doing things themselves and as cheaply as possible. Nowadays, cheap mechanisms are available for all Q.R. diesels and bogies for rollingstock can be bought, modified or made. Many moulds have been produced for various wagons and carriages. Some mechanisms are available for some Q.R. steam locos. However scratchbuilding a mechanism is not too difficult after a little experience. Generally, if you want to model Q.R., you'll have to do it yourself, but those who do find it rewarding and enjoyable. We hope the photographs within this article will show what can be done as far as Sn3½ Q.R. locos are concerned. ▪

VICRAIL ALIGNED BOGIE

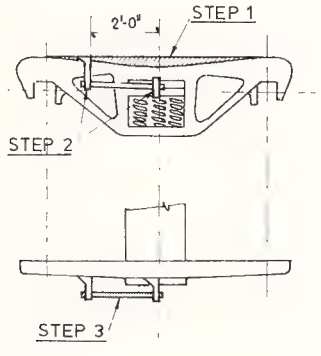
Convert a CON-COR 'N' scale bogie to represent a Vicrail aligned bogie, as detailed by Peter T. Ennis.

The Vicrail aligned bogie can be represented in 'N' scale by modifying a Con-Cor 50' box car (No.1681D) bogie.

Step 1. Super glue a section of polystyrene sheet on top of the bogie sideframe and file flat.(See shaded area on diagram).

Step 2. On each side of the bogie glue two sections of plastic at right angles to the side frame (as shown in the sketch) to give clearance of the bolts (to be added in Step 3). Observe the photographs and it will be noticed that the bolt supports near the wheel are angled to be level with the top of the side frames whereas the inner ones are not, as they are attached to the bolster. The outer ends of the bolt supports are rounded.

Step 3. Fit in between these supports a section of 0.015"wire to represent the bolts.



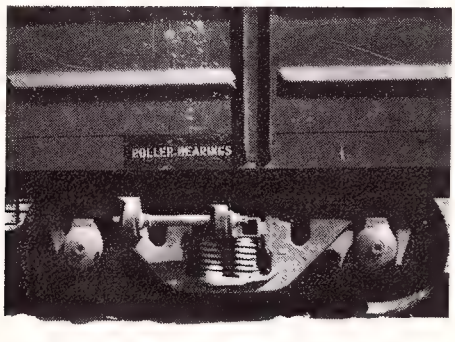
The Con-Cor bogie scales out at 5'9" wheel centres which matches the prototype. However the sideframe web arrangement as shown in the sketch does not quite represent the prototype frame.

I also suggest replacing the wheels supplied (33"dia.) with 36"diameter wheels.(The Model Dockyard of Melbourne stocks Con-Cor wheel and axle sets.)

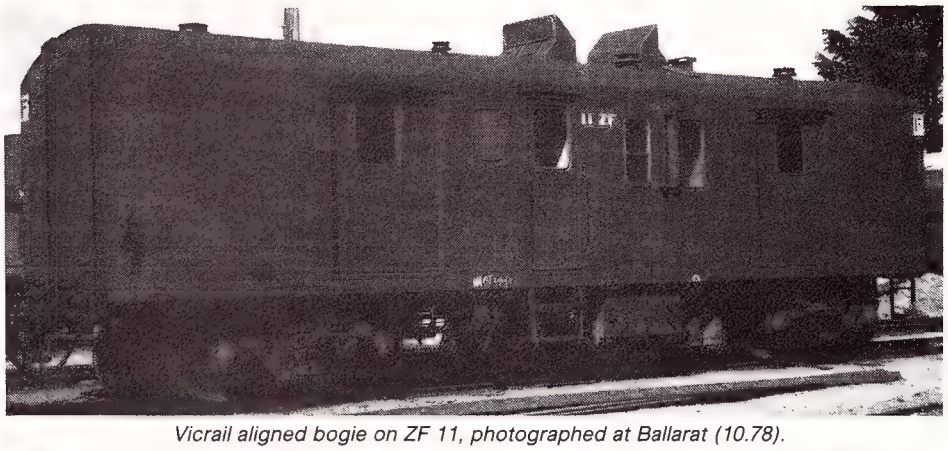
A compromise therefore has to be struck but when painted and under the wagon (VR 'ZF') the modified bogie looks similar to the aligned bogie.

Note — The completed bogie has metal wheels and Rapido couplers.

Reference: V.R. 'ZF' class drawing No.Z2. ▪

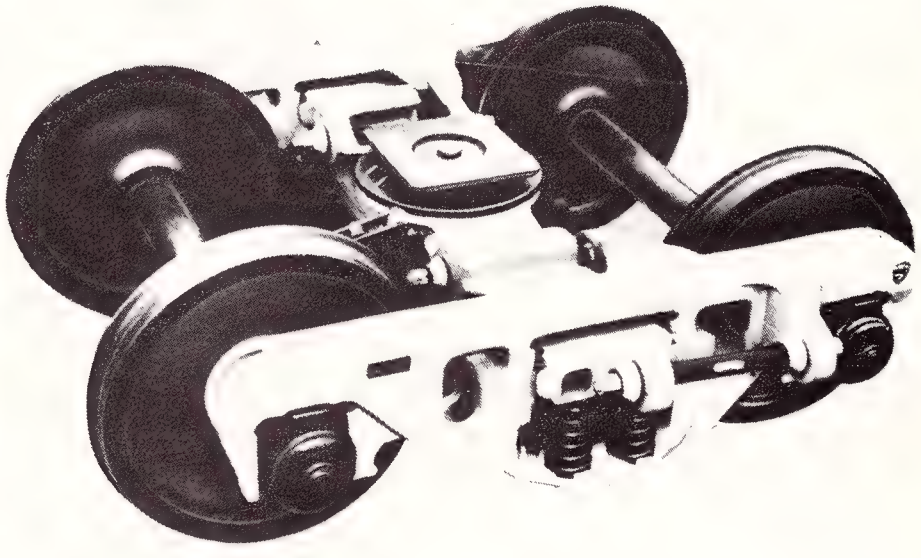


A closer view of the VicRail 5'3" gauge aligned bogie. All photographs by the author.



Vicrail aligned bogie on ZF 11, photographed at Ballarat (10.78).

BLF 123 photographed at Mitcham (10.78) fitted with the aligned bogies.



The aligned bogie is illustrated by the above diagram which was taken from a Bradford Kendal Foundries advert.

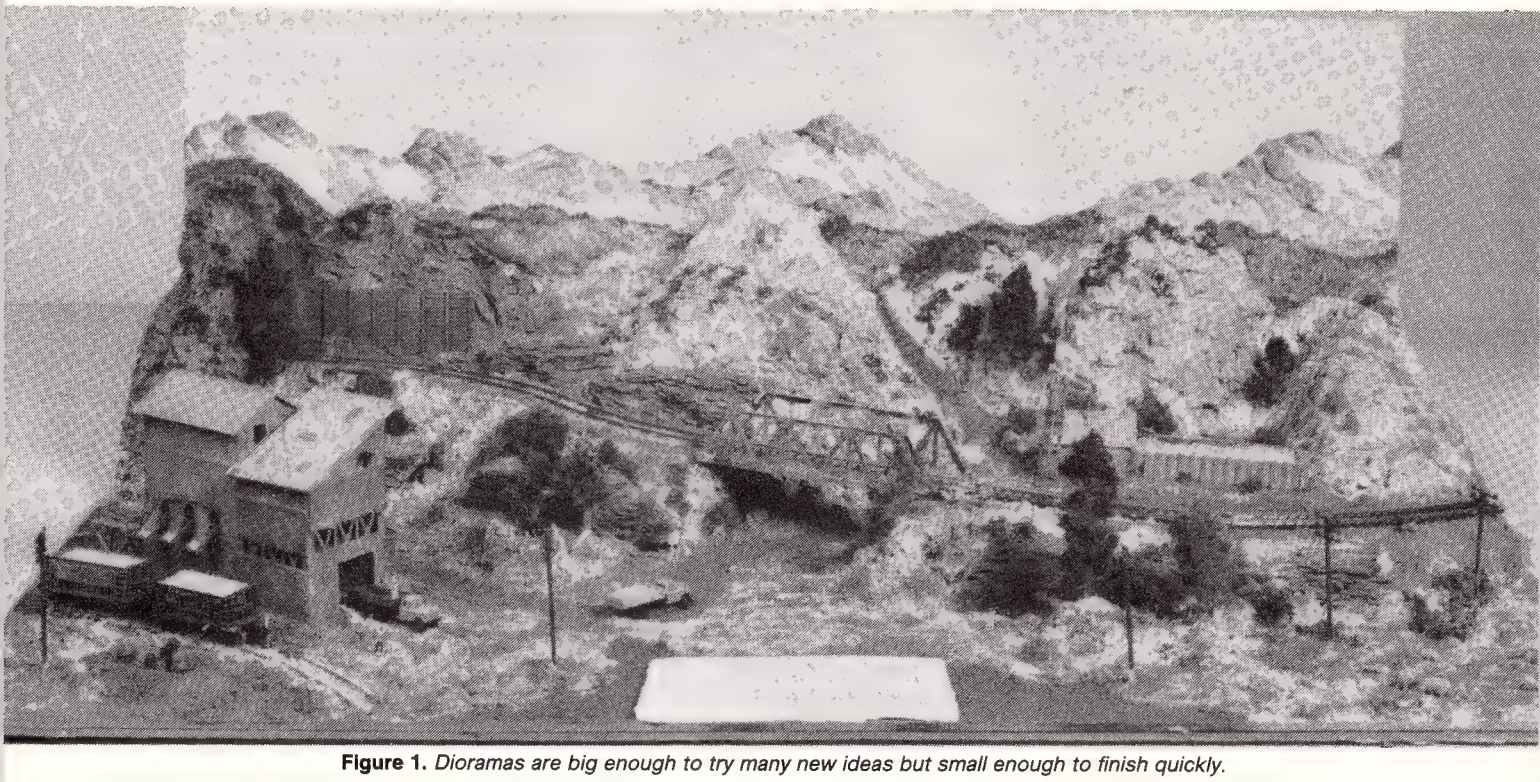


Figure 1. *Dioramas are big enough to try many new ideas but small enough to finish quickly.*

USE A DIORAMA AS A TEST-TRACK

by Jack Sinden

Try this quiz. Do the mountains on your model railway look like gravy? Is your backdrop still the off-white wall of a room? And do you get discouraged by the large area that still needs scenery? If you answered yes to any of these questions, build a diorama to test new ideas and complete a model quickly.

Recently I was in Tucson, Arizona for six months and this gave only a limited time to build something. So I set out to build a diorama and test new ideas ready for my N-gauge when I returned home. Without my usual tools, the diorama ended up 600mm x 900mm in size — this was the size of the pre-cut hardboard at the nearby hobby shop.

The finished diorama is shown in Figure 1. The general theme was a railway twisting up through the hills, with a snow-covered mountain range in the distance and sheep paddocks in the foreground. This followed my layout at home and provided an opportunity to try new ways to build mountains and do backdrops.

Trying More Mountain Techniques.

At home I'd already tried several techniques to build mountains. I had used papier mache in the first attempt. I vaguely remembered this technique from my schooldays many years ago. But when finished, the half-metre high mountain weighed some 12 kilos and cracked the plywood baseboard.

The second attempt, with chicken wire, had been only a little more successful. I tried to cut wooden supports of the right shape, cover them with chicken wire and cover the wire with a thin layer of newspaper and Polyfilla plaster. The newspaper/plaster covering worked well but I just couldn't cut the wire or supports to the right shape. I had read of many successful attempts using this technique in my growing pile of model-railway magazines. But odd bits of my wire stuck out, cut my fingers and derailed my trains inside the tunnel. Just as bad, I couldn't mould the wire to the fine contours of N-gauge hills.

I had also tried a polystyrene foam mixture and rock moulds. Equal quantities of two liquids are mixed to give instant foam. The foam rapidly swells up and can be placed in prepared moulds. The theory sounded fine, the directions on the cans of liquid were clear and I'd seen pictures of attractive results. But even with several trials, I couldn't work out the right quantities of liquid for each rock mould. My five centimetre-high hills swelled to 30 centimetres and my son said that the lower slopes looked like gravy. I'm sure others could use this successfully but I needed some technique that suited my limited skills.

The diorama was a good chance to test more of the large number of possible mountain-modelling techniques. So I tried three more and these are all shown in Figure 2. I modelled rock outcrops to the left of the bridge, above and below the track. These are lumps of pine bark carefully selected from the landscaping on a neighbour's garden — with his permission, of course. I prepared foundations of a thick layer of soft Polyfilla, pressed the bark in hard and poured Polyfilla round the back. The bark stood out rather starkly from the Polyfilla so I disguised the bark/plaster joins with ground cover and lichen bushes. The bark was then washed with a 70/30 mixture of paint thinner and a matt grey paint. The adjacent Polyfilla was washed with the same mixture.

The other two techniques are also shown in Figure 2, although their effects blend nicely into each other in the picture. The general shape of all the mountains, hills and slopes was formed by crumpled newspaper. I accidentally used by son's entry to a McDonald's hamburger contest so one hill is now "Contest Hill". I crumpled the newspaper into the right shape and covered the entire surface with brown sticky tape (sometimes called masking tape). At $1.75 a roll, the tape seemed expensive but it kept everything in place and filled in the gaps in the surface of the newspaper. Then I ladled on a liberal layer of Polyfilla mix and did one of two different things. First, for good shapes for hills and lower slopes, I simply pushed the mix around with my finger or a piece of wood and almost any "push" made a good rock or contour. Fingers are best for smooth slopes and wide valleys, while wooden pointed sticks are best for details.

Second, the high mountains were made by pressing crumpled aluminium foil on the moist Polyfilla. The mountain dries in about an hour when the foil peels off easily.

All these three new techniques seemed to work well, none required great skill and the Polyfilla was fun to work with. The results can be seen in the figures.

First Attempts at Backdrops.

Backdrops had always bothered me. Other people's backscenes added depth and realism to their layouts. But my attempts to paint in distant hills, towns and rivers all flopped. I had also searched the hobby shops but failed to find prepared N-gauge backscenes that suited my layout.

So my wife tried two new ideas on the diorama. Both can be seen in Figure 3; both seem to work well — although not side-by-side. On the left my wife painted the entire backdrop as blue sky and clouds. She brushed on two patches of bright sky blue, each about 20mm x 100mm. Then she washed these patches over the entire 600mm x 300mm styrofoama backboard, using a paper towel soaked in paint thinner. Then I planned the tunnel, built it and fixed the sky at the back.

The backdrop on the right was a purchased, modular backscene glued onto the same kind of sky. Detail Associates make a series of backscenes that can be cut out and re-arranged. I purchased their 12a and 12b

Figure 2. *Trucking ballast up to the Woolbrook and Black Mountain Railway. Buildings from Pola, bridge from Atlas and ballast from the roadside.*

Figure 3. *Entering the Black Mountain tunnel. Both of the different kinds of backscene blend with the diorama — but they don't blend with each other.*

Mountains, cut some of the mountains from the continuous strip, and re-arranged them and the accompanying forests to suit my diorama. When satisfied that they fitted in with each other and the mountains I had already built, I glued them onto a styrofoam board. My wife then painted in the sky with the same wash technique, complete with two birds. I then fixed this backdrop to the sides of the mountains and bottom of the baseboard with tape. Finally, I filled in the gaps between backdrop and mountains with more mountains and shaped them into the backscene. The way the backdrop and model mountains blend in can be seen in Figure 3.

Speed up Scenery Construction.

My two square metre model at home seemed to be taking an unending time to fill with scenery. After two years I'm still at it. But I completed the diorama (about 2/3 of a square metre) in some 30 hours, spread over a six week period.

I tested some new ideas for speedy modelling and a diorama itself can speed construction. For example, the track doesn't have to be laid perfectly for a good visual effect. The mountain range ended abruptly because I ran out of space, but this was no problem on a diorama because dioramas end abruptly anyway.

Mountain painting and "growing grass" were two things I had been doing slowly. Previously I painted mountains and dirt in small patches about 50mm x 50mm. Now I tried the wash technique over the whole mountain range in one go. Several washes gave a good effect, with valleys coming out darker than ridges and with a pleasantly uneven colour over all. To do the grass, I washed large areas of the ground several times with a 70/30 mixture of paint thinner and a matt brown paint. The ground already had a thin layer of Polyfilla to provide the necessary ground contours. Then I spread and glued the "grass" scatter material over the entire ground area.

Was it Worth it?

As Malcolm Fraser once said, "Others should be the judges of my work rather than I". But, politics aside, my son doesn't say my mountains look like gravy anymore. The backscenes look infinitely better than a faintly dirty wall and I've managed to complete a model. And more positively, I discovered several techniques that suited my limited skills, the whole diorama "hung together" as a scene and I had a good time making it.

P.S. After I completed it, I discovered there are even more things you can do with a diorama that you can't do with a permanent model. I took it 150 kms, bouncing along in the boot of a car, to a model display. I took it on the bus to the photographer — at a specially reduced fare of 50 cents. And, much to the amusement of my colleagues at work, it spent a week on a shelf in my office. ■

Hornby Conversions

by Peter Kelly, photo Ian Bird.

In 1913 the Commonwealth Railways obtained Crane Loco No. 1, and the Triang/Hornby clockwork 0-4-0 with a "Bluebox" crane mounted on it is a fairly close model of it.

I used a clockwork loco because I had one spare and it has the advantage of proving that the club layout works before the manager plugs in to the power supply.

The Works Guards van is a flat bogie wagon on which is mounted an Airfix guards van and Roundhouse 3 plank siding.

The load is 2 boxes, some mailbags and 1 trunk.

The 2 hard working chaps (who stopped to have the photo taken) are unloading a Queensland Rail ALY van.

The van is a cardboard kit (refer L. Dreever's article — Nov/Dec 1974) with the doors glued open, the area normally covered by the doors hollowed out and some boxes glued on the floor.

The van is mounted on a 4 wheel chassis.

Bill, the chap sitting on the boxes in the EKO truck, and Ralph in the van are both clothed in Wild West gear by Airfix.

The Arnotts Biscuits and the other truck are Tyco converted by glueing on ads to cover the American railway signs.

NEW TRICKS FOR AN OLD DOG

by Paul Hemsworth

I guess my approach to modelling is similar to most modellers in that I find a method that works for me and I stick to it. As a consequence of this basically conservative attitude, I tend to view the claims made for many new products rather sceptically. These new-fangled products are all right for beginners who haven't yet had time to develop tried and true methods.

I did have a brief flirtation with "Super Glue" when it came out but found it rather expensive buying a tube for each job. It didn't matter that I used all the tricks about which I'd been told or read — "keep it in the fridge" — "store it upright", etc. — when I came to use it the second time the cap was always "Super Glued" onto the tube. Naturally, after skilful application of pliers and knives and other things removed the cap, all the glue in the tube was found to be dry anyway. This sort of experience did nothing to reduce my scepticism about claims made for new products.

Wood has always been a satisfying material for me. I enjoy working with wood and I feel that nothing represents wood in a model as well as wood does. This is my personal opinion; I don't mind if everyone else spends his time carving wood grain in styrene or brass. While in a true confession mood, I might as well admit straight off that I use white glue (P.V.A.) to bond wooden models. Despite many dire warnings about warpage, it hasn't yet occurred.

However, wherever it's possible, I make walls, floors, roofs and other surfaces of two thicknesses. Originally, I kept the grains at right angles to each other but one model required a horizontally planked interior with a weatherboard exterior. With fingers crossed, I laminated them with their grains parallel. No warpage occurred over a reasonable period so now I use two plies but don't worry which way the respective grains run.

Finally, while the glue is drying, I clamp the sandwich between a couple of boards with flat faces. When I say "clamp", I don't mean I rest Saturday's Age on it. Usually I use 19mm dressed pine or hardwood secured by 4 inch G clamps.

Use of the above techniques gives me the results I desire but there is one drawback. Keeping the clamps on until the sandwich is completely dry usually means an overnight wait, so this system, while effective, is SLOWWW.

No doubt you are as sick as I am of reading the following types of descriptions:-

"I spent four very enjoyable evenings totalling 10 hours assembling this kit which comprised 795 parts hand carved from the twelve inch length of "3 x 2" hardwood supplied, and 458 soft metal castings which I painted individually with a 00000 brush using slightly thickened road marking paint."

"Fred Nurk had no interest in model railways, so when he unexpectedly received a dockside switcher he spent only two days throwing together a 63 feet by 37 feet test track comprising hand laid code 70 rail on 254,798 ties with 4 spikes per tie."

A spot of reflection on these articles left me with three explanations for such speed:-

1. I'm really dull and cacky handed,
2. They're really smart and dexterous,
3. They know something I don't.

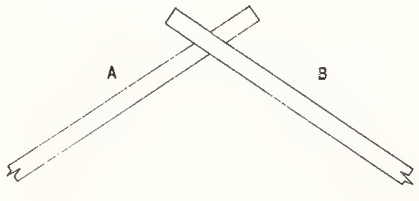
Vanity ruled out numbers 1 and 2, so 3 was the only acceptable possibility. My belief in explanation 3 was vindicated the first time I saw a "Kadee Twin Spiker" in action. It left me wondering why Fred Nurk took two whole days to lay his test track. The "Kadee Twin Spiker" was a piece of technology about which I'd heard but, never having seen one, I had no idea of its potential and had more or less forgotten it.

The lesson I learnt from this is that it is worthwhile spending a little time to experiment with new products. Accordingly, when I saw "Super Jet" in a hobby shop, I grabbed a bottle although I had no immediate use for it.

These things seem to have a way of working themselves out. Not long after, at a club meeting, I saw a photo of a pretty little weatherboard station. Two days later I had decided to make a model of it. At the club meeting the following week I was able to show the basic building. In five days I had "guestimated" the dimensions from the photo and produced all the walls, the floor and the roof, all laminated. This was little short of a miracle and all due to the "Super Jet".

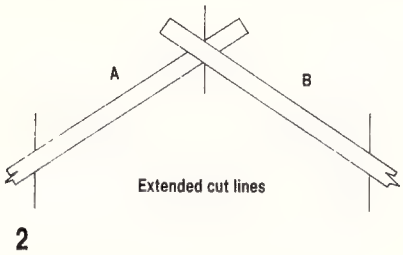
Needless to say, I was now a "Super Glue" convert. The station went swimmingly until I came to the fancy wood trim on the gables. Tricky fitting jobs such as this I'd always tackled by making a full size drawing and using the technique I'd learnt as a kid making model aeroplanes. Balsa parts were cut out and pinned to a full-sized drawing while the glue ("Tarzan's Grip" in those days) dried. My index finger bone is probably permanently dimpled from pushing pins into unreceptive wood.

These days I just hold the wood part with sticky tape while the white glue dries. While preparing the drawing, I realised that here was a chance to try out another new product that had been sitting around for a while — transparent double sided tape. When the drawing was complete, pieces of double sided tape were placed in strategic positions to hold the wooden parts. The barge boards were tackled first. (See fig. 1.)



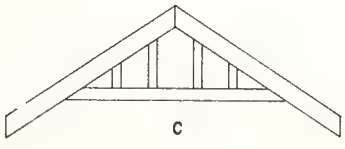
1

Strip A was laid carefully on the drawing where it was held by the double sided tape. Then I realised I'd foprgotten a vital step in the drawing. All cut lines must be extended so that the line shows on both sides of the strip wood when it is in position. This is so the razor blade can be lined up accurately. (See Fig. 2.)



2

Strip A was replaced on the drawing and strip B laid in position also. Using a single edge razor blade, strips A and B were cut to their required sizes. Cutting the join of A and B with one stroke ensured a neat fit. The same process was used to cut all the parts. (See Fig. 3.)



3

When all parts were in position, a smidgin of Super Jet was introduced to each joint. This wasn't very successful as some joints were too neat for the glue to enter. To get around this, the drawing, with all the wooden parts attached by double sided tape, was removed from the work board. Then the drawing simply was flexed to open the joint, glue inserted, and the drawing quickly replaced on the flat work surface for ten seconds or so until the glue dried. After checking that all joints were secure, the drawing was peeled from the back and replaced on the work board where the other end was made in the same way. Not only is this method easier on the digit bone, it is actually more accurate because the parts are held more securely than by pins.

Large areas or long edges can be a problem because, although "Super Jet" has filler in it, it still can soak into the wood. My solution is to apply the glue to one face than go over it with a piece of scrap wood to make a thin film of the glue. If the glue is just left to dry, the beads will hold the joint apart. After the film has dried the wood is sealed. Another layer of glue can be applied over the dry film and it won't soak into the wood. The second face is then brought up to make the joint in the usual way.

CAUTION! Wear safety glasses when working with "Super Jet". I always wear safety glasses when using Super Glue but didn't think they were necessary because "Super Jet" is too thick to squirt. I quickly changed my mind when I saw how far the glue can be flicked if the little teflon applicator tube catches on anything.

Summing up, experimenting with two new products has been beneficial to my modelling. It isn't often that an increase in speed is accompanied by an increase in accuracy.

So, if you've experimented with new products or methods lately, let us know about it. ▪

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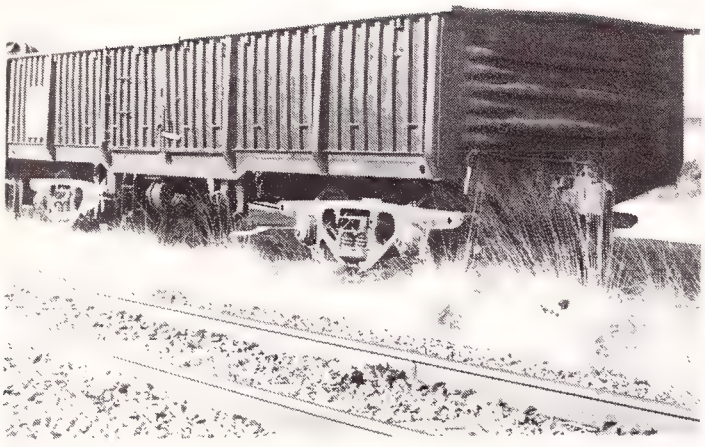
The August 1983 issue will be published on July 15, 1983. If you have received a renewal notice in the last few weeks, the renewal money and note has to be returned to the AMRM office by June 17, 1983 so that your subscription may be continious. — *Editor.*

THE ENDS

Everything may not be quite what it seems with the prototype. An essay into detail difference with Bob Gallagher.

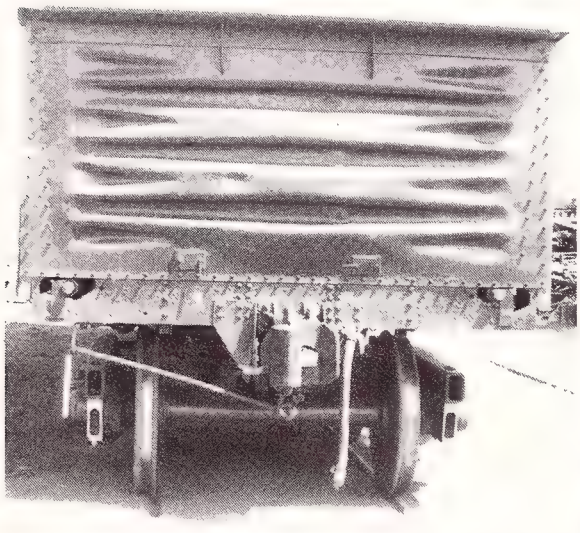


BD 28273 fitted with dreadnought end in place of the usual corrugated one. This detail difference has also been noted on BD 28284 and 28349. Photo taken at Botany, 1981, by Bob Gallagher.

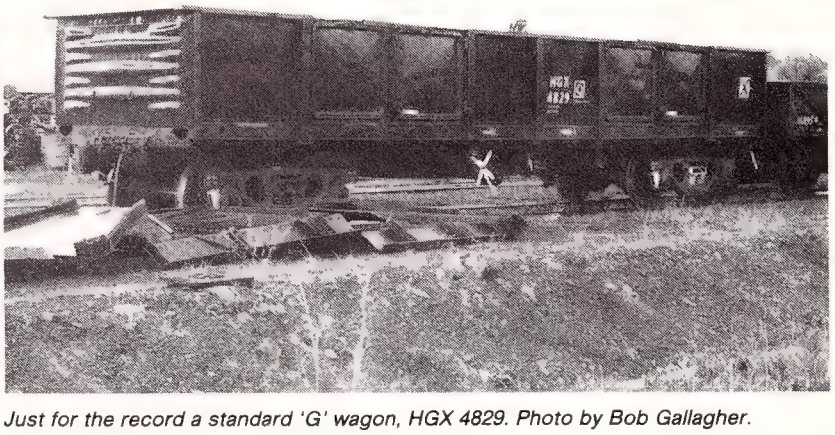
Life is never boring, especially when one becomes involved with railway rollingstock research. Some time ago, when building up a model of a BD open wagon from a kit, I realised that the photograph I was using for detail reference was not quite right, and on closer investigation I realised that the normally corrugated sided (and ended) wagons had been fitted with a dreadnought end similar to that fitted to 'K' and 'G' wagons.

A quick check through the photo file showed this instance to be rather common, especially to wagons that have been in service for many years. One must assume that the different end was added when the wagon was being repaired with the correct spare part being unavailable.

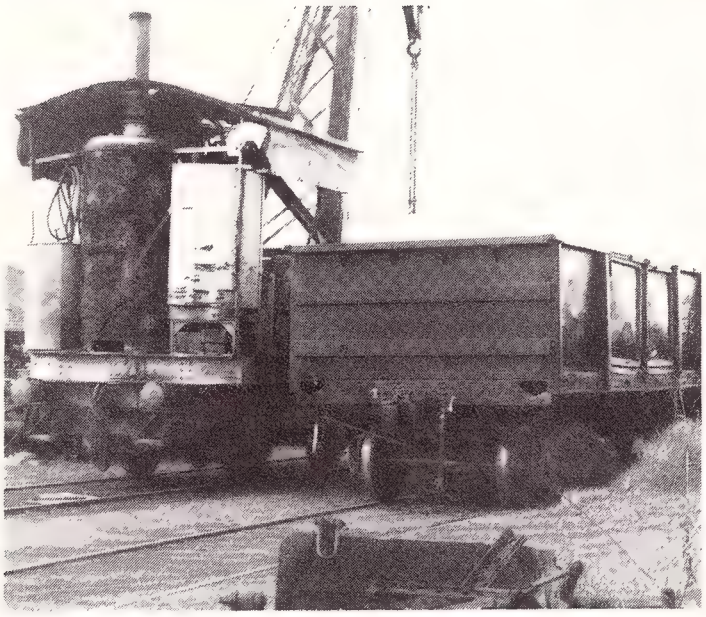
Applied into the modelling sphere this variation in detail accuracy would no doubt be a talking point. Some of the variations observed around the railway yards are illustrated in the accompanying photographs.

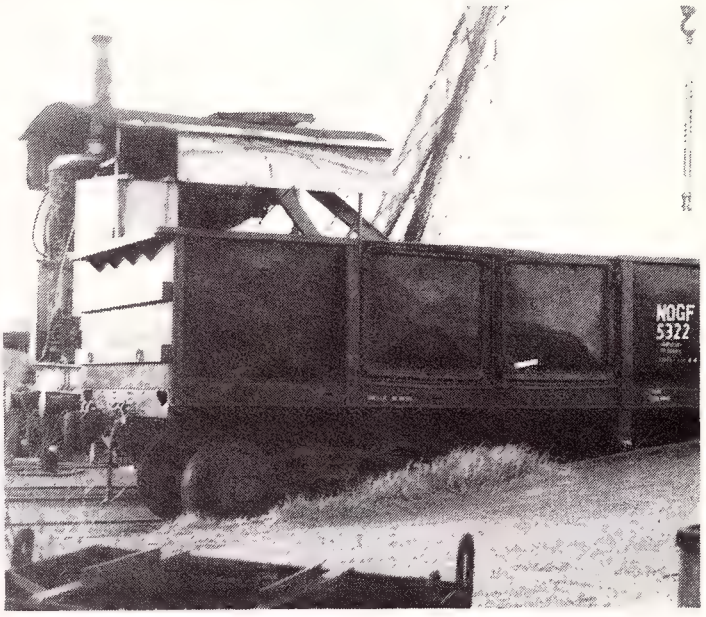


A 'G' wagon with a difference. The standard dreadnought end has been fitted but the inside is out; then of course the outside is in! Phil Collins photo.



Just for the record a standard 'G' wagon, HGX 4829. Photo by Bob Gallagher.





It now appears that the dreadnought end as a replacement part is either no longer available or not strong enough for 1980 style duties, for the 'G' wagon is being fitted with a fabricated end made up of 1/4" to 3/8" plate reinforced with 6" x 3" channel sections that have been welded in place. The coping on the top edge is also a section of 6" x 3" channel welded in place and strengthened with gussets. In the case of NOGF the modification was applied to both ends. Photographed at Clyde by Bob Gallagher.

VICRAIL F CLASS IN N SCALE

Tony Scott describes the building of an N scale F class 0-6-0 diesel shunter on a commercial chassis.

For some time now I have been wanting to build a model of one of the two 6 wheel shunting locomotives in use on the Victorian Railways. Not that I have a real need for one on my layout, it's just the challenge of construction that I like. So I have been on the lookout for a commercial model with a rod-coupled 0-6-0 wheel arrangement and with the correct wheel size and spacing.

The 1979 edition of Walther's N scale catalogue showed a 6 wheeled Davenport industrial switcher from Atlas (No. 4069) which looked as though it might fill the bill. Although unable to accurately determine the basic dimensions (it's 850km to the nearest hobby shop), I decided to take the plunge and order the Davenport. As it turned out, it is almost identical to the F class in wheel spacing (see table), although a bit small in wheel diameter. However, the cab is much longer than that on the F and it is the cab that houses the motor. Thus a good deal of chassis butchering is required.

The final dimensions of my model are shown in the table, together with the dimensions of the prototype; all measurements here and in the drawings are in millimetres.

TABLE 1

	Model	Prototype
Wheel diameter	7.0	7.6
Wheel spacing	11.3	11.2
Length	49.5	49.0
Width	18.0	17.4
Height	25.3	23.8

The biggest discrepancy is in height but this is unavoidable due to the size of the motor. Anyway, as with most models, no-one can tell unless they actually measure it. Furthermore, all my N scale locos are a little higher than they should be (because of the location and size of the motors) but they are all approximately correct relative to each other. In any case, the differences are only about 5%.

Plans.

I broke my own golden rule by not obtaining an outline plan from the Vicrail public relations people. Instead, I drew up my own plans from careful measurements made from photographs in the "VR Diesel Pictorial" and by

using the overall dimensions given in "An Australian Diesel Locomotive Pocketbook". I have not included my plans of the loco since they may be in error in some places but I strongly suggest that you obtain plans from Vicrail.

Chassis Alterations.

Because the loco is so small there is very little margin for error in its construction. To assist in making the alterations side and front elevations of the Davenport chassis are shown in Fig.1, together with the required file and saw cuts. The numbers indicate the order in which the operations should be carried out.

First, cut away a section of the chassis sides (cuts 1 and 2, both sides). This is done because these sections will be very thin and partly removed after the sides are filed in the next step. Now file the chassis sides to the sloping shape as shown; width at the top should be 10mm and at the footplate level 11mm. Then make saw cut No.3; this is a very delicate one as it removes part of the threaded hole for the screw that holds the wheel-retaining frame in place. This is done to allow room for a Kadee coupler to be fitted. Then make cut No.4.

At the hood end make cuts 5, 6, 7 and 8. Exercise special care when doing the last two because the chassis will become very delicate at point X. The big problem at this end is how to fit in the Kadee coupler. In order to get it in at all, cut No.7 has to be a sloping one, otherwise the whole front portion of the chassis would separate from the rest at X.

After doing this you will find that the screw holding the wheel retaining frame in position will protrude above cut No.7 and a little bit must be filed off the end of it. The screw at the cab end must be treated similarly in order to place that Kadee in as far as possible.

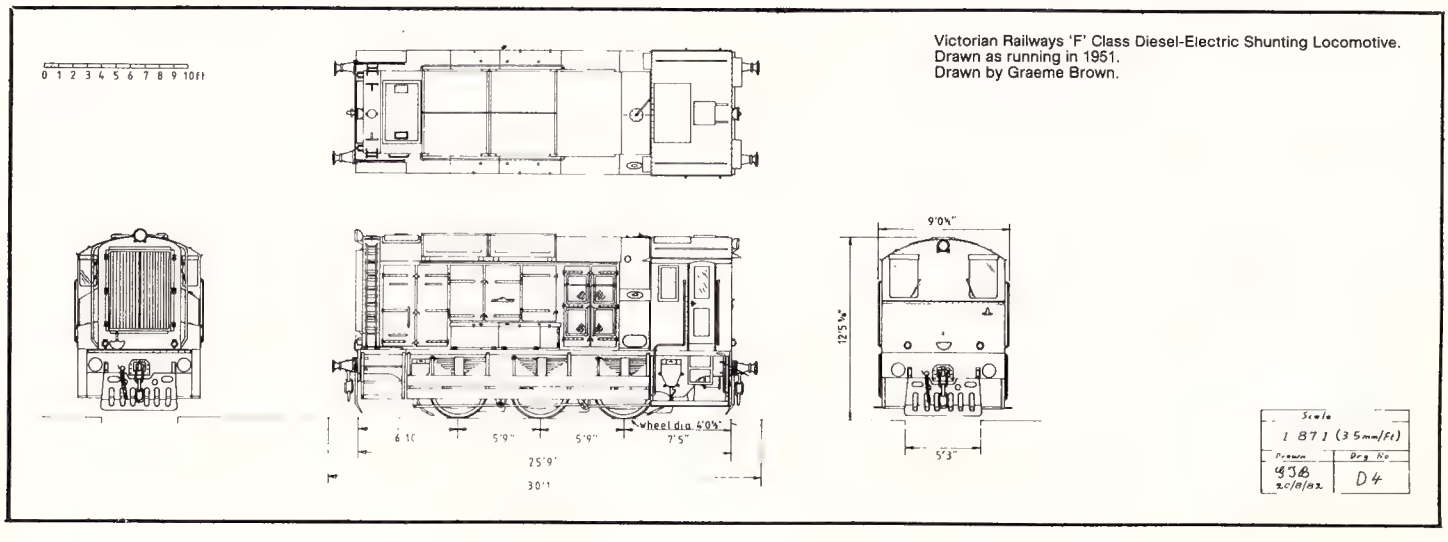
Remove the plastic conical spacer around the screw hole on top of the motor (marked A in Fig.1) in order to reduce the height as much as possible. Finally, remove the light globe as it is all but impossible to include a working headlight after sufficient weights have been added.

Fitting Couplers.

Attach the wheels to the chassis in order to get to the correct height. The coupler at the cab end is left intact except for a bit of filing at its rear end to remove the small protrusion and make the end plate a little thinner — about 0.6mm is removed in all. Also cut off the vertical plate at the front of the coupler. Adjust the height of the recess on the chassis and cement the coupler in position with 5 minute Araldite or similar adhesive. Be careful not to get glue over or in the holes in the draft gear box as I did with the first one. Ideally, the front face of the coupler gear box should protrude 0.5mm out from the end of the chassis (see Fig.2).

The other coupler is a little more difficult and its fitting involves two compromises. First, it is too high by about half its height and second, it had to be set so far back that it has lost some of its springiness. These drawbacks are not too serious in my view and are far better than having the chassis an extra couple of millimetres too long, thus upsetting the proportion of the model. So cut away the rear and part of the top and bottom plates of the draft gear box so that they are no longer than the two arms inside; this involves the removal of about 1.5mm total off the length. Again, cut off the front vertical plate, then glue in position. With any luck it should protrude 0.5mm out from the chassis, which should now measure 49.5mm over the end plates of the Kadees, as shown in Fig.2.

Re-assemble the chassis with motor, wheels, etc. and check that the poor little thing still goes. That concludes the chassis alterations for the time being, although we will return to it later to add weights.



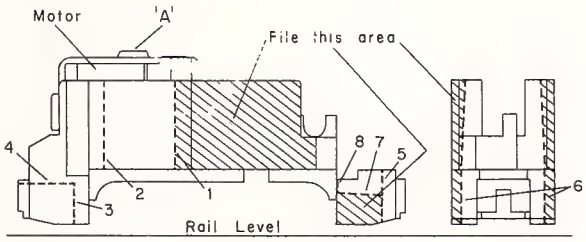


FIG. 1

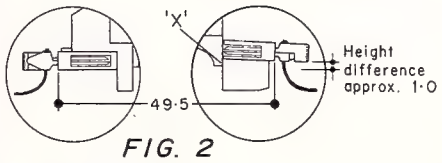


FIG. 2

Scale for Figs. 1, 2 & 3

0 5 10 20 30
mm

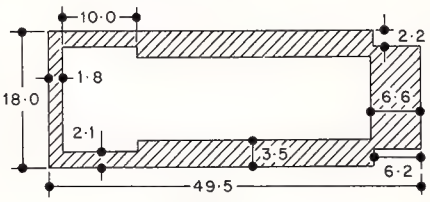


FIG. 3

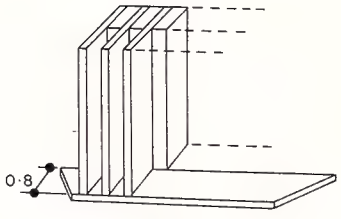


FIG. 4

Body Construction.

The whole body must be built from scratch as there are no parts of the Davenport that suit the F. Start by cutting out the main frame from 0.030" styrene to the dimensions given in Fig.3 (you will have to alter the measurements shown for this part if your chassis has ended up a different length than mine). It should slip neatly over the chassis and sit horizontally. If it doesn't, add thin styrene shims to the top of one of the couplers until it does.

Hood Top.

The top of the hood can possibly be made in more than one way. I chose to use a piece of styrene 0.23mm thick (which, I think, is supposed to be 0.010 thou. sheet but must be a little on the thin side). I cut it to the correct dimensions and then filed it to the curved profile of the prototype. However, it is too deep at the cab end and a section must be removed from the underside to accommodate the motor and upper brush holder. This was done with a razor saw and narrow chisel — and a bit of old-fashioned gouging.

At the radiator end of the hood top, cut and file a flat slot about 0.5mm deep and fit a mesh grille to represent the exhaust fan.

The last step for the hood top is to locate and drill the hole for the body retaining screw. With great care, obtain the distance from the front of the body to the screw hole in the top of the motor frame, subtract 0.5mm (as the front end of the hood is located 0.5mm back from the front of the body) and mark the hole location on the centre line of the hood.

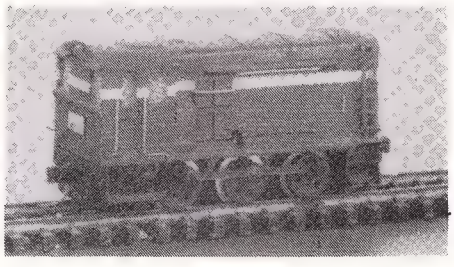
Drill the hole very carefully without distorting it or moving it off centre. Final diameter should be 1.7mm; countersink the hole with a ⅛ inch drill to a depth just sufficient to bring the top of the screw flush with the top of the hood. The depth of countersinking is the main reason for choosing to make the hood top out of fairly thick styrene; thinner material will not give the screw anything to hold onto after countersinking.

Finally, attach a piece of 0.020" styrene to the inside of the hood top to act as a spacer to keep the sides from collapsing under pressure. That is the hardest part finished.

Front Radiator.

Next on the list is the front radiator grille. Perhaps you have a bit of something in the odds-and-ends box that will suffice; I didn't, so here is how I made it. It's not exactly to prototype dimensions but it looks pretty good all the same.

Cut out 11 pieces of 0.010" styrene, each 10.8mm x 1.8mm and 10 pieces of 0.020" styrene, each 10.8mm x 1.0mm. Construct a jig consisting of two pieces of wood about 3mm



thick forming a right-angled corner on a flat base piece. This is simply to keep all the segments of the radiator square and even as they are glued together. Cement the strips of styrene together, alternating between thin and thick strips, so that they look like Fig.4. When absolutely dry remove them from the jig, clean up the edges and add a top and bottom strip of 0.010" as shown in Fig.4.

Hood Front and Sides.

Now cut the front hood panel (radiator surround) out of 0.020" styrene. It should be 13.9mm high, 10.2mm wide at the top and 11.2mm wide at the bottom. Test fit the radiator in the gap.

Cut out the hood sides from 0.020" sheet, each side being 36.9mm long by 13.9mm high. File a very slight bevel on the top and bottom edges. Make up eight rectangular mesh panels with surrounds of 0.010" styrene on edge and cement them in position on each side panel as per the prototype.

Hood Assembly.

First cement the sides onto the main frame, then cement the front hood panel (without radiator) in position between the sides. Make sure it is 0.5mm back from the front of the frame. Attach the hood top in position and when this assembly is thoroughly dry, file the front of the hood to ensure all joints are flush. Then glue the radiator in the gap.

At this stage, check that the hood fits snugly over the chassis in the vicinity of the body-retaining screw. If there is a gap between the underside of the hood and the top of the motor frame, glue a spacer to the hood (mine needed a piece of styrene 0.15mm thick). The body retaining screw may need shortening but take it slowly to ensure you still have enough usable thread left.

Cab.

The cab sides are made out of 0.010" styrene sheet. Make up the panelled doors from heavy paper, cover the lower panel with styrene and leave the upper one open for glazing later. Make a hole in the end cab panel for a headlight lens if you wish.

After checking that all pieces fit properly, cement them in position starting at the hood end. A small curved panel must be made up to fit below the roof at the hood end of the cab. When all is dry, lightly file the end of the cab to get all joints flush.

Now cut the roof section out of 0.010" styrene and bend it, under near boiling water, to the correct curvature (radius about 16mm) around a former of the right size. The roof should have a tiny bit of overhang at each side and none at the front and back. After cementing to the cab sides the top of the roof should be about 0.5mm higher than the hood. That is the basic body finished.

Body Details.

The detailing consists of the following additions:

- Toolboxes on both sides of the hood.
- Tanks with filler caps etc. on both sides where the cab meets the hood.
- Straps across the hood top, made from 0.010" styrene strip. 0.005" would be better.
- Vents on the sides of the hood between the straps (they are fiddly and could be omitted for they are almost invisible).
- Sun visors above the front and back cab windows. They are made from 0.030" styrene filed to a wedge shape.
- Angle strips along the side of the hood and on the front cab panel just below the windows. This is made from the smallest Plastruct angle strip with one side filed even thinner.
- Marker lights made from a piece of round sprue.
- Handrails and grab irons made from 8 amp fuse wire and attached through No.79 drill holes with a touch of styrene cement.
- Ladders at the end of the hood. Brass ladder stock is best because it can be bent to shape with ease. Insert the ends of the ladders in drill holes and hold then in place with styrene cement or other adhesive, applied from underneath.

Weights.

This is a very important feature for an 0-6-0 loco in N scale. It is essential that every nook and cranny be filled with metal, preferably lead. There is plenty of room behind the front radiator and on the underside of the hood, forward of the motor, for large slabs of lead. Thin pieces can also be glued around three sides of the cab between the floor and the bottom of the windows.

Weights can also be added to the chassis at this stage. Some of the metal pieces cut off at each end of the chassis can be re-shaped and attached on either side of the couplers. A large piece can be glued behind the motor above the small sloping part of the chassis to

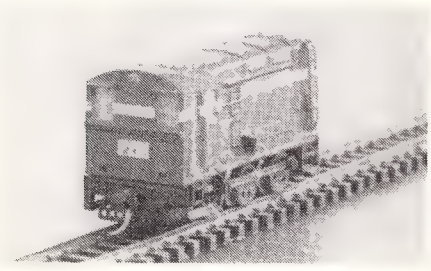
fill up the cab area. Further pieces can be added around the area where the light globe used to be.

Buffer Beams and Pilots.

It is usually best to have these items attached to the body so that the chassis is uncluttered. In this case, however, it is very hard to do it and something is bound to fall off sooner or later. Therefore, they are all glued to the chassis with Araldite.

The buffer beams are made out of 0.020" styrene and should come out flush with the front plate of the Kadee couplers. The pilots are cut from 0.010" styrene and have eight holes, each 1mm in diameter, drilled in them. They should have oval holes but there is no way I could make 16 identical oval holes so they have to be round. The holes are not essential but they are a nice prototypical touch.

After adjusting the buffer beams for fit, especially around the couplers, glue them to the chassis while the body is still in position. Remove the body just as the glue is setting so that it does not remain permanently stuck to the chassis. Then attach the pilots to the buffer beams.



Steps.

The shunter's steps are made up from the smallest size Plastruct angle strip, although this is rather oversize. Make the right-angled bends by cutting a 90 degree vee in one side of the angle strip and lightly scoring the other side with a saw. Add platforms for the shunters to stand on and glue the steps to the chassis. Add small steps below each cab door.

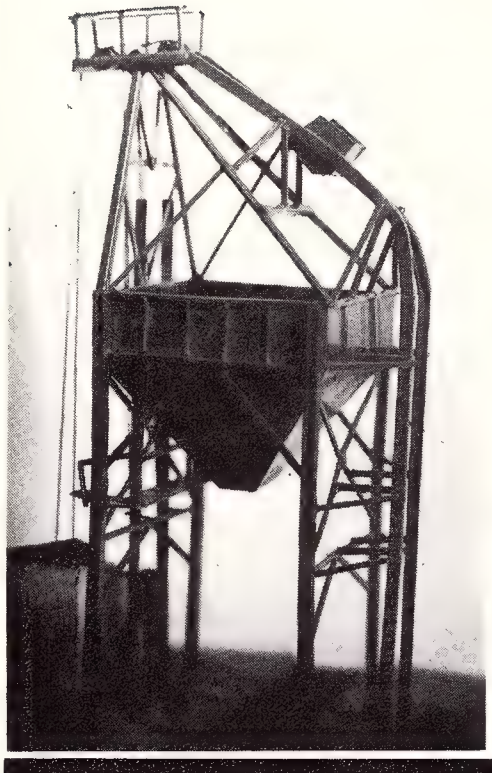
Finishing.

Make up the two number-boards using M'nJ decals. Since the model has no buffers you are restricted in the range of numbers that can be used. As far as I know, only F201, F215 and F216 are bufferless. After painting the loco VR blue, glue the number-boards on and add the yellow stripes from the M'nJ decals. Cover everything with a coat of matt varnish and finally add the window glazing inside the cab.

Well there it is, except for coupling rod protection boards which I haven't got around to yet. For an N scale loco, with 0-6-0 wheel arrangement, my model runs surprisingly well and will pull more cars than some of my main line locomotives. I believe this is due to three things. First and foremost is the inclusion of the maximum possible amount of lead weights. Second is the maintenance of clean wheels at all times, and third is the provision of live frog points on the layout.

I was a bit apprehensive about the outcome of this project, especially considering the amount of chassis alteration that had to be done. The result is very pleasing and all the more so because of its size. Small is beautiful you know. ■

SCENIC ROUTE



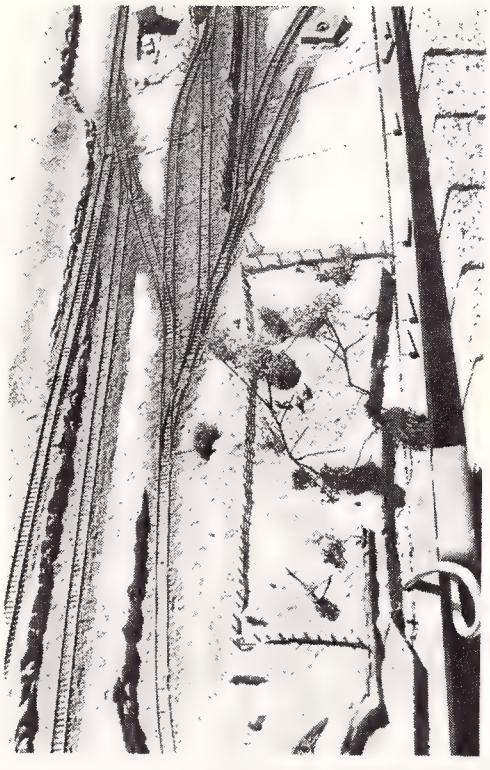
This segment of SCENIC ROUTE presents some photographs from Chris Main, illustrating some of the models made from information presented in A.M.R.M.

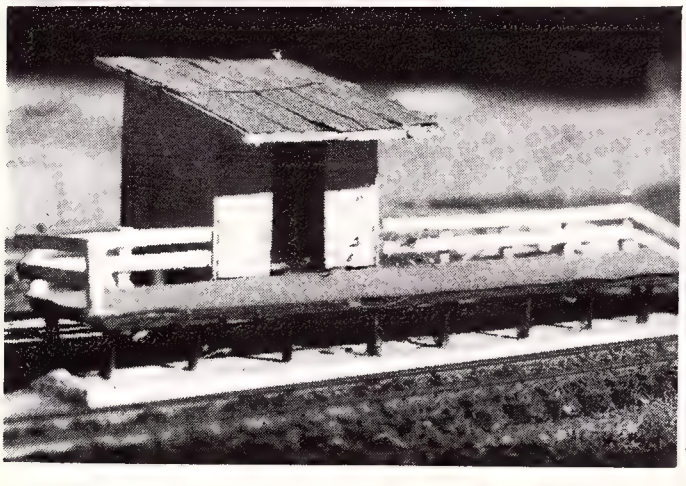
***Left:** A model of S.A.R. coaling stage in 'N' scale, based on the drawings in A.M.R.M.*

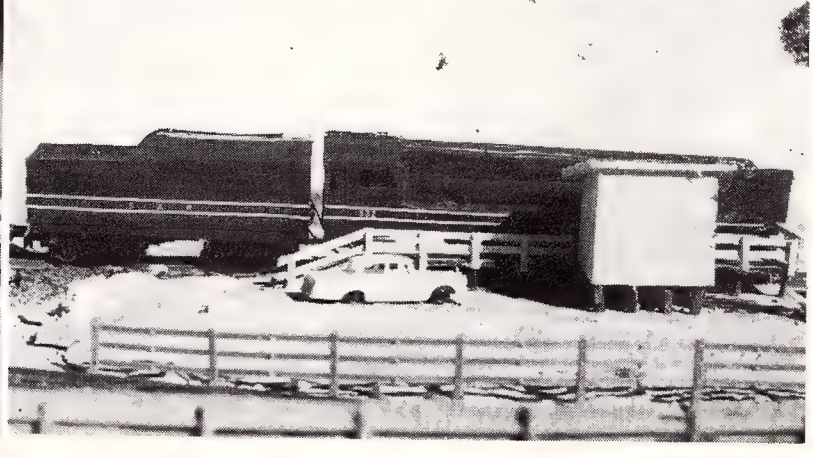
***Right:** A 'N' scale module of Port Stanvac.*

***Below Left:** A model of a N.S.W. halt based on Clergate, via A.M.R.M. Commercial siding was used for the walls and Alfoil-over-file roofing.*

***Below Right:** A model of S.A.R. 532 beside a halt, which hides its lack of valvegear. The scratchbuilt 'N' scale model, was built on a KATO mechanism, and brass tube, plastic, card and thin craft copper was used for materials.*







V.R. 'F' CLASS DIESEL ELECTRIC SHUNTER

The English Electric Co. Ltd., of Broadford, England sold ten diesel shunters to the Victorian Railways in 1951. The 0-6-0 locos were numbered F310 to F319. Basically a standard British Rail shunting locomotive, they were initially painted black, then red and yellow and finally blue and yellow.

Also in 1951, the State Electricity Commission of Victoria purchased six identical engines, which were issued the numbers 1 to 6. These locos were painted green.

By 1971 all six S.E.C. shunters had been sold to the V.R. and the total 'F' class renumbered F201 through to F216. They now all carry the V.R. blue and yellow livery.

Purchased specifically as shunting locomotives, they were modified for local conditions and regulations. They were used in major terminals including Dynon, Geelong and Melbourne.

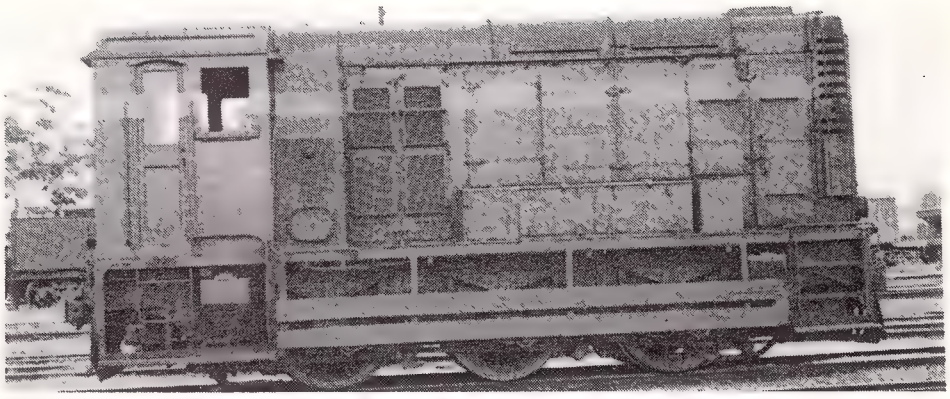
Over the years the class was subject to many modifications. These and the livery changes will be detailed in a feature article on the 'F' class, which has been scheduled for publication later in 1983.

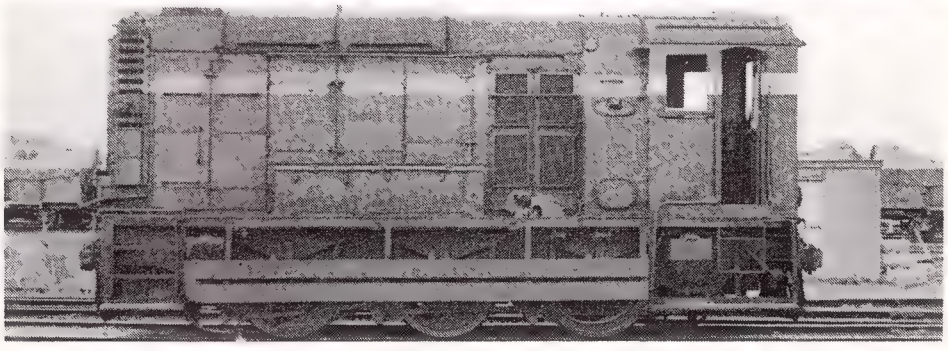
For this article, the authors are still searching for photographs of the engines during the 1950s when in service for the State Electricity Commission. Photographs of the locos in the green livery are preferable. Confirmation of the livery change dates would also be apreciated. Any readers able to assist are requested to contact the editor immediately.

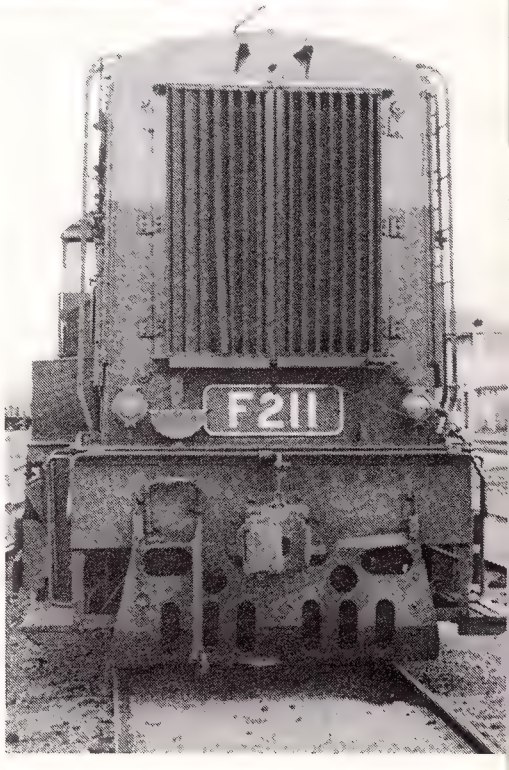
Phil Jeffery.

CAN YOU HELP?

A.M.R.M. authors working on the V.R. 'F' class prototype article, due for publication later in 1983, are urgently seeking photographs of the class, especially F210 to 216, when in service for the S.E.C. (State Electricity Commission). Any assistance should be directed to A.M.R.M. P.O. Box 235, Matraville, 2036 as soon as possible. — *Editor.*







Steve Cullen, took these four photographs of F211 sitting in the sun at Geelong in mid January 1966.
This engine was originally SEC3 and was the first S.E.C. 'F' class locomotive to be purchased by the Victorian Railways.
The V.R. leased this engine along with 4, 5 and 6 from the S.E.C. prior to purchase. Initially these State Electricity Commission locomotives were painted green, but F211 is depicted in the blue and yellow livery.

F215 was in service at Seymour when photographed by Phil Jeffery in 1982. F215 was originally SEC5, and was one of the last green shunters repainted to the V.R. blue and yellow livery.

AN "O" GAUGE CASE AGAINST STYRENE UNDERFRAMES

IN PICTURES

By Harry Bender

Photographs by the author.

This model, being one of three VR AS cars built in 1968, was constructed with a styrene underframe and the photo shows the result of a derailment. Actually, all three cars were built with a styrene underframe. Subsequent models were constructed with tinplate underframes. AS13, upon being derailed, climbed a low retaining wall between the start of two gradients; all this has since been removed (guess why?). Had this car's underframe been constructed in metal, this severe loss of detail would not have occurred, not to mention the subsequent search for all the missing equipment. Details ripped off were: the two air tanks with all their piping, the axle-driven generator unit, the water tank with all its piping and valves, as well as some of the brake piping. Also the compressor unit for the air-conditioning was partly broken and dislodged. Let's face it, there is just as much equipment and piping under these cars as is found on a loco boiler. I cannot understand modellers who build a fully detailed loco but only fit blocks of wood and bits of dowel under passenger cars. After all, this detail can be seen just as readily as on a loco. Incidentally, the bodies of these cars were built from perspex formed in one piece in a mould.

This is a view of my layout before it was rebuilt in 1978 and to the right can be seen a GY with its complete front end ripped out. This model was completely built from styrene. The cause of this damage was the result of another derailment. This would seem that my trackwork is not the best but I always lay the blame on inexperienced drivers (who else!). This particular accident was caused when a wagon further back in the train became derailed and fouled the end of the platform. This evidently did not deter X42 (the steam version!) which was hauling the train. The loco kept going with the least point of resistance being the styrene GY, which happened to be the only model in the train with a styrene underframe. I might point out that all my locos are scratchbuilt, with a powerful home-made motor and the boiler full of lead. This, of course, results in a decent haulage capacity.

Above: *These two models are a good example of where both metal and styrene can be employed. The body of the CJ cement hopper was completely built from styrene integral with the hopper bottoms, this being much easier to construct from styrene, while the centre sill and end platforms were built up from tinplate. This enabled me to solder all the intricate brake gear in position, as well as steps and ladder (much easier than gluing). This also produces a robust underframe. Incidentally, this model was built in 1969, one of a batch of four, long before the VR increased their capacity. I doubt if I will ever do the same to my models. The ZLP was built in the same manner, a styrene and perspex body, with a tinplate underframe. This made the fitting of underfloor detail easier and more permanent. Upon completion and painting, the bodies were glued to their respective underframes. In the case of the CJ, the top end of the ladder was glued to the roofwalk.*

Below: *Here is shown an HY on the left and a GY on the right. The only difference between these two models is that the HY is all metal construction and the GY is built from styrene, except axle guards and brake rigging. Both took the same time to build as each was built in batches of four wagons. The time taken was 12½ hours each, not including wheels and castings. The case against the styrene GY wagons was that, over a period of time, some wagons lost shunters' steps, ridge pole brackets and parts of the brake gear, whereas the HY wagons, being built from tinplate, are all still intact. This is not a case of rough handling, as may be imagined. I do look after my models, but they are not handled with kid gloves as I expect them to withstand normal wear and tear in railway operation, including all those derailments caused by inexperienced operators!*

Summary.

The aforementioned experiences have shown (I hope) that styrene does have certain limitations in O gauge modelling.

Evidently, these problems do not occur in HO and N scales, as is evident by the excellent models built by fellow club members of the Victorian Model Railway Society, whose models have been described in this magazine.

Therefore, I do not wish to deter anyone from producing models completely built in styrene. This article was only written to describe the problems I have encountered with my own models; also to help overcome the drought in O gauge articles in AMRM. ■

First in the class, PHG 10661 as built. Note the wording on the doors which indicates intended use as a passenger carrying brake van. Note also the externally strengthened ends (steel beams) and the set of louvres adjacent to the luggage door, suggesting a dog box. Photo courtesy of the State Rail Authority of New South Wales.

N.S.W.R. 'PHG' Bogie Goods Brake Van

Notes by Paul Rogers and Bob Gallagher.

Plans by Adrian Compton and Howard Armstrong.

One of the largest classes of goods brake vans to run on the New South Wales system, the 247 'PHG' vans were placed in traffic between 1937 and 1953 to replace the original 'BHG', 'IHG' and 'LHG' codes. Although the original series of 'PHG' vans were built at the Railway Workshops and Tullochs of Rhodes, the majority were built by Ritchie Brothers of Auburn.

The road numbers allocated to the 'PHG' vans cover a large range, and in many cases 're-cycled' numbers were used. A list of road numbers are included in this article.

The long period of construction saw some basic detail on the vans change from that shown on PHG 10661, the first in the class. Many of these variations are illustrated in photographic and plan form, while the text describes some of the alterations and reasons for the alterations.

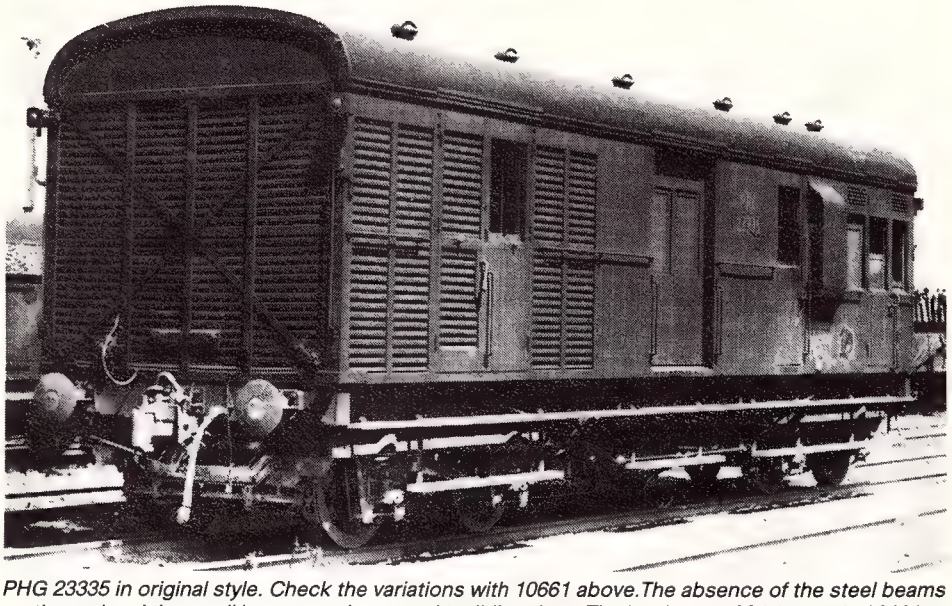
Commencing in 1965 large numbers of the class were withdrawn from service and 're-cycled', where the steel underframe and running gear were used for the construction of the 'OHG', 'GHG' and 'JHG'brake vans. As a class, the 'PHG' van no longer remains in service, although a few can still be located in sidings at various country yards.

Description of Vehicles.

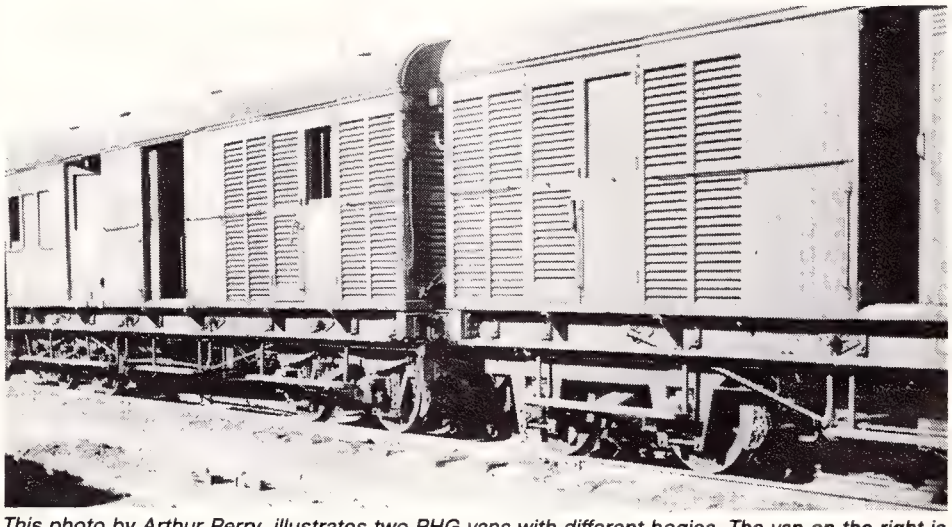
The 36'0" all timber body was mounted on a steel underframe with queen-posted outside trussrods. The vans were originally fitted with 2AM bogies but the majority were fitted with 2SA type bogies during overhaul from 1948 onward.

The body was divided into four compartments, one being a compartment for six passengers, with access to a toilet. A guards compartment and two goods sections, one for perishables made up the interior of the van.

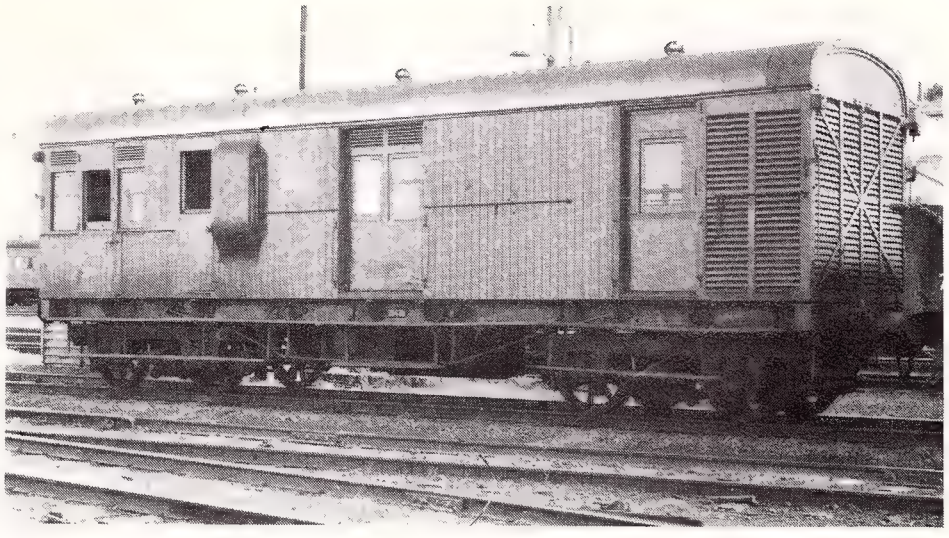
The guards compartment, while adjoining the passenger section, did not have access to the toilet. It was fitted with standard guards



PHG 23335 in original style. Check the variations with 10661 above.The absence of the steel beams on the end and the small louvre section near the sliding door. The bogies are 2SA instead of 2AM as fitted to PHG 10661. Photo courtesy of the State Rail Authority of New South Wales.

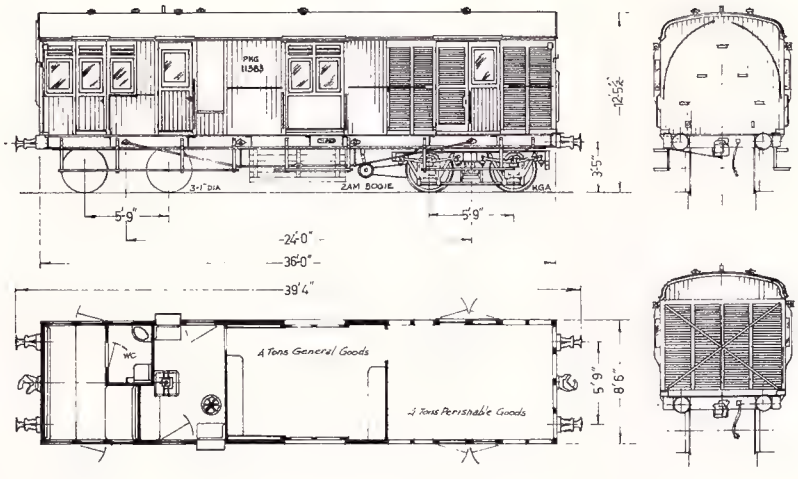


This photo by Arthur Perry, illustrates two PHG vans with different bogies. The van on the right is fitted with 2SA style, while 2AM are fitted to the van on the left. The original full louvre panels are still fitted to the perishable goods compartment.



Left: *PHG 25629 photographed at Wollongong in March 1961 clearly shows the modified sliding door and the smaller number of louvre panels. The tongue and grooved boards cover the van. Howard Armstrong photo.*

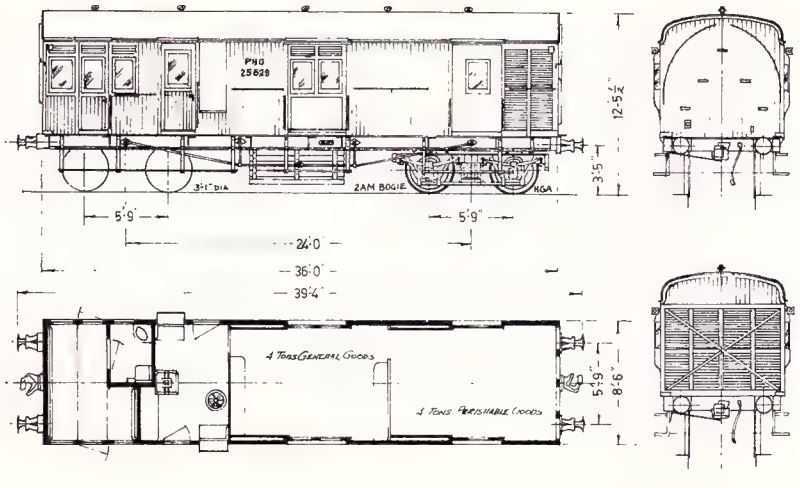
1423



N.S.W.G.R. 'PHG' — GOODS BRAKE VAN.
SCALE: 'N'. 1:160
DRAWN: Howard Armstrong

Plan shows van as built in 1935.

1427



N.S.W.G.R.'PHG' — GOODS BRAKE VAN.
SCALE: 'N'. 1:160
Drawn: Howard Armstrong.

Plan shows van as rebuilt in 1948.

lookouts on both sides, which was a distinctive feature of many N.S.W.G.R. brake vans on both the goods and passenger register. In some instances 'PHG' vans were fitted with small prism lookouts, in place of the standard units.

Access to the centre 4 ton general goods compartment was via a sliding door, on each side of the van. Photographic evidence suggests that a 'dog-box' may have been fitted to the early series vans.

The 4 ton perishable goods compartment, at the end of the van, was featured externally by louvred panels on the sides and end, although the louvres did not extend to the roof on the end panels. Access to the compartment was via two hinged doors each side of the van, the doors swinging outward. One feature of these doors was that one was louvred and the other a plain door with a fixed window pane on each side.

As built the vans were fitted with buffers and automatic knuckle couplers, although provision was made for the use of link coupling between the van and wagons. A full length and three short steps were provided each side between floor level and the ground to allow access to the various compartments from the ground. Hand rails were fitted alongside each door, on the ends and at belt line level virtually the full length of the van.

Fixed marker lamps were fitted to the ends and torpedo vents appear to be the standard ventilator used on the roof of the early series vans. A useful feature of PHG 10661 was the additional steel support on the end of the van, a feature not noted on other vans.

Electric power was provided from batteries housed in a 6' battery box, located centrally under one side of the van, while the electrical fuses and distribution panel was located on the other (underside) side of the van. The batteries were recharged by a generator, belt driven off an axle. The generator was fitted under the perishable goods section of the van.

Modifications.

As with any class of vehicle which is large in (class) numbers and had a long service life, the 'PHG' van was subject to modifications, some of which were carried out to the early series vans before the latter series vans were built, but these modifications did not necessarily apply to those vans built after the said modification date.

To further confuse the subject, the timber louvres on the perishable section of the goods compartment were either replaced with plain timber during modification, or not built into the latter series vans. This matter has not been fully determined during the research of this article.

Some of the modifications that did apply to the vans was the replacement of the tongue and grooved boards with plain cladding, either Masonite or plywood. The feature of the 'PHG' van, the timber louvred panels did diminish in number as the vans continued in traffic. Many of the vans remaining in service in latter years had only two louvred side panels, and these were adjacent to the end panel. The end panels retained the louvred sections.

The door to the perishable goods section was changed into a sliding door with fixed window pane but the size of the door did appear to vary in width among various vans.

When the plain panelling was applied, in many instances, the steps on the passenger end of the van, and the curved handrails were removed. Many of the 'PHG' vans, during their

Left: *PHG 11506 after it had been modified with sliding door, the siding covered with plain timber (Masonite?) and a new livery applied. The van has the small number of louvre panels on the side and is painted Indian Red with yellow (chrome) lining. The N S W R logo of the time is set out on the side in sloping yellow blocks. Photographed by Phil Curnow at Hornsby in February 1974.*

The above two photographs illustrate the end panels before and after modification. The photo on the left (PHG 13217 — Bathurst, July 1975 by Phil Curnow) shows the steps, curved handrails and lamp brackets as fitted to PHG vans upon introduction to service. The photo on the right (PHG 17007 — by John Beckhaus) shows the modified plain siding ends less the steps and curved handrails.

PHG ROAD NUMBERS

10661/62/64/78. 10824/62. 10964. 11296. 11319/51. 11481. 11506/76/86. 11633/76/97. 11737/54. 11928 – 11937. 12015/88. 11204/45.
12301/04/05/07/14/31/33/34/35/ 12767. 12932. 13124. 13217/71. 13315/71/88. 13403.
13728/64/85. 13840/68/91. 14242. 14571. 14661.
14773. 14961/62/64/66/69/72/75/78/90/ 15007/ 08/10/12/14/22/35/36/38/39/40/ 15064/65/6/69/7/71. 15104/56. 15651. 16201/42. 16330.
16843. 17006/07/10/11/12/14/15/15/17/ 17021/22/66. 17243/67. 17305/24/28/50. 17470.
18021. 18110. 18326. 19161. 19879. 21201. 23277 – 23340. 25600 – 25649.
NB. Van 15045 was renumbered 17023.
VANS known to have been painted red include 12335, 13388, 2388 and 23301.

PHG 17066 modified with sliding door and 2SA bogies. Photographed in 1969 at Port Waratah by Bob Gallagher.

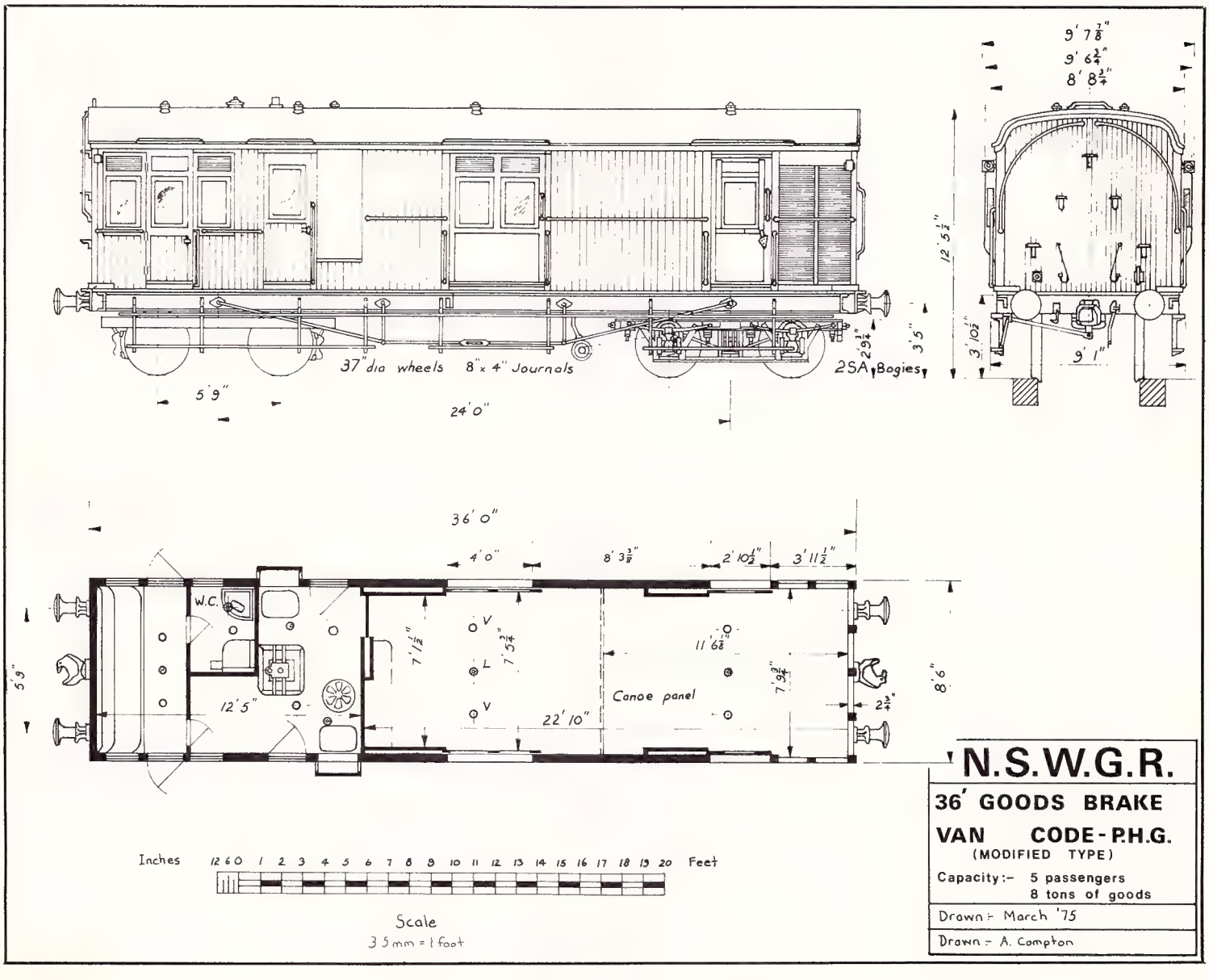
life, were not fitted with marker lights, but they did have the lamp brackets fitted to the ends. This aspect seemed to vary between vans but most with plain cladding had the marker lamps fitted to the ends of the vans. Photographic evidence does suggest that on some vans the torpedo vents were replaced with the Fletner style.

As the use of the passenger compartment diminished, access to the toilet for the guard was made by removing a section between the guards compartment and the passenger compartment. This modification included the sealing of the guards compartment doors,

The signs of a decaying van. Nearly forty years of service have seen a few modifications carried out to the van but much of its splendor is still evident, even if a little dilapidated. The paint has worn off, leaving the puttied nail heads visible in the tongue and grooved boards. The much dented roof has been repaired in a couple of spots and the louvres over the passenger compartment door are long gone. Restricted to daylight-only operation between Bathurst and Georges Plains this van illustrates an atmosphere that many modellers would give their right arm to reproduce in model form. Photographed in Bathurst in July 1975 by Phil Curnow.

eliminating much of the discomfort associated with the former layout of the guards compartment.

As indicated, some vans were fitted with 2AM bogies (thought to have been procurred from unused coaching stock) but many seemed to have been fitted with the 2SA type.



Livery

The standard livery for the 'PHG' brake van was a sombre dark grey with silver roof, for during their period of operation the N.S.W.G.R. was very conservative in livery matters. This dull hue was relieved with black undergear and white lettering. However a feature of some coaching stock was applied to the 'PHG' vans, the swinging doors being fitted with brass door handles (latch handle) which was usually brightly polished.

In latter years some vans were treated with the tuscan red livery applied to other brakevans. This was relieved with yellow lining, silver roof and black underframe. A feature of brake vans at this period of time was applied to the red 'PHG', this being the application of the N S W R coding in sloped yellow blocks on the side of the vans. Refer to photographs for style and layout of yellow lining.

Operations.

A brake van, in New South Wales, is usually the last vehicle in a train and this was the case when the 'PHG' was in service. The marker lamps on the end panels when illuminated to red indicated the end of the train. Housing the guard, the van also had provision for the guard to stop the train. This was made possible by a large vertically mounted brakewheel situated in the guards compartment.This was only designed as an emergency item.

Having passenger accommodation the vans could be used on branch line mixed trains where patronage could not justify the use of a passenger car or where transportation of drovers (on stock trains) may be required.

The 'PHG' vans were general purpose goods brake vans, originally introduced to assist in the withdrawal of obsolete 'BHG' and derivative units of the 'IHG' and (old) 'LHG' codes. The 'PHG' vans , by virtue of their large numbers, became a standard item of N.S.W.G.R. rolling stock.

Apart from the 247 vehicles covered by this code, the design gave birth (after the Second World War) to the 200 all steel 'MHG' pattern. Eventually, when their wooden bodies gave out, the 'PHG' vans donated their frames for construction of new vans, as mentioned earlier.

Regulations existed for the use of 'PHG' vans as brake vans for passenger trains if required. They can, therefore, be modelled in a variety of circumstances. At least two vehicles, 13388 and 23288, have been scheduled for preservation by the Lachlan Valley Railway and Hunter Valley Railway and Museum respectively.

There were still 8 'PHG' vans on the *books* in 1980.

Acknowledgements.

Special acknowledgements are due to Mr.Ross Willson for the provision of information on 'PHG' vans generally. Other thanks are expressed to Mr. John Forsyth (Archives Officer of the State Rail Authority of New South Wales) and to Howard Armstrong and Graham Ball for their assistance.

ELX CORRECTION

The V.R.'ELX' was covered in detail in the October 1981 issue of A.M.R.M.

In follow up research I found that the date to service for ELX 90 was incorrect.The date is not 1964 as tabled but is 19.2.68. One ELX underframe was utilised for the prototype 'ESX'construction. This left the ELX programme short of one number. With new ELX construction in 1968, the first vehicle to service was numbered '90'to fill the gap.

Peter Vincent.

KF Flat Wagon and GP Gondola

Garry Kahler continues describing the kitbashing of Australian style goods wagons from British and American wagons.

In Part 3 of this series, when we built a milk tank wagon, a set of axle boxes were left over and it is possible to convert these into a KF flat wagon.

This is quite a simple exercise. Take a piece of 0.060" plasticard 76mm long and 29mm wide. To each side glue a strip of 0.010" plasticard 3mm wide so that it is flush with the top of the 0.060" piece. Then on each end glue another piece of 0.010" plasticard, again flush with the top, but shaped from 3mm wide at the edges to 6mm wide 10mm in from each edge. Cut out the centre, back 3mm, to allow for the coupling box. On top place a piece of scribed balsa and glue into place so that the timber decking runs across the wagon. This piece should measure 77mm x 30mm.

Now take each of the four axle boxes and fit with a Peco brass axle bearing (or similar). Mark on the underside of the wagon two lines across the base 39mm apart, 19mm in from each end. Place suitable 10.5mm wheel and axle sets into the axle boxes and glue them to the underside of your flat wagon so that the axles line up over the pencil lines. Ensure that the axle boxes are square and upright and that the wheels run freely in the axle box bearings. Fit couplings of your choice and, if you wish, handbrakes and brake cylinders to the underside.

Paint and code your wagon and you have another addition to your fleet.

N.S.W.G.R. 'G' Wagon

If you have a American 40ft gondola wagon you can convert it into a N.S.W.G.R. 'G' type open wagon, or one of the variations of that wagon such as GP, GC, GM, GH, GX, HGM or HGX. Firstly remove the hand brake wheels from the ends of the gondola and then fill the hole with epoxy filler. Smooth off when set. Then take to the sides with a fine file and remove all the detail except the end angle bracing and the top edge detail. At this stage you should determine which wagon you want, as there are basic differences between them. However once you have decided which one you want then the principle is the same.

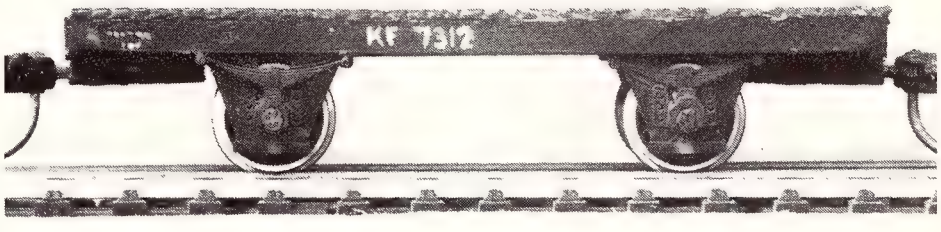
If your wagon has side doors, then you will need to remove the top edge detail only where the doors will go. Rebuilt GP and GC wagons have no side doors so the top edge detail is left on. Next place a piece of Plastruct 'U' channel, base outwards, along the bottom edge of each side flush with the base of the wagon. Mark out on each side eight even spaces from one end to the other. Spaces 2 and 3, 6 and 7 are the doors.

Now cut five strips of 0.010" plasticard 1mm wide and mount edge on between spaces 1 and 2, 3 and 4, 4 and 5, 5 and 6, 7 and 8. These strips should extend from under the top lip to the top of the Plastruct channel (at the bottom). Between spaces 2 and 3, 6 and 7, place a strip of 0.020" plasticard 0.5mm wide mounted flush. Once these have set mark out eight square pieces of 0.010" plasticard then scribe and press out the 'diamond' pattern in each, as previously described in my article on the 'K' wagon. These pieces should then neatly fit between the top edge, the uprights and the base channel.

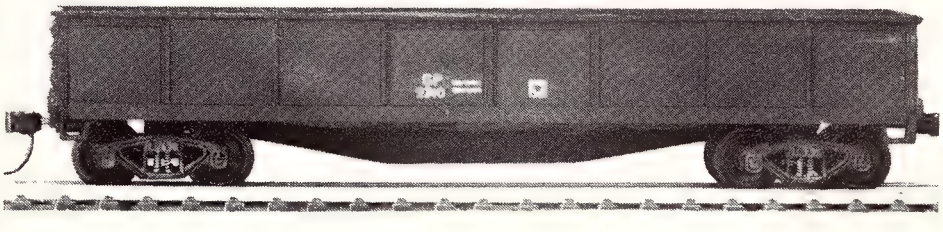
The doors may then be detailed with hinges (smaller pieces of plasticard glued on) and lock bars (fine wire) where such are fitted. Now turn the wagon upside down. To the centre of the underframe add a flat piece of 0.020" plasticard 5mm wide. Mark and cut out two pieces of 0.010" plasticard to the shape of the 'fish-belly'.

Mount these one to each side of the strip just added, over the outside edges then glue another piece of 0.010" plasticard 6mm wide, scribing and bending this piece over the angles of the fish belly. This piece should overlap the upright pieces by 0.25mm each side.

Fit couplings of your choice and add the necessary amount of weight. Place your load in the wagon, then paint and code.



KF 7312 completed and ready for work.



GP 2310 awaits a load of concentrate. Photographs by the author.

FREELANCING THE PROTOTYPE

A little research and imagination can come up with a viable layout, as discussed by John Casey.

I am in the early stages of planning a new layout and I want this one to reflect several things which are considered necessities for any railway — model or prototype. The main one of these is a reason for being there.

My first step was to look at a map of New South Wales to find an area of the state that seemed to lack a railway but in my opinion required one. An area I had in mind was in the southern area of the Goulburn — Queanbeyan district.

I had been tracing my family tree and discovered that my early descendants had settled in Gundaroo, near Yass. On reading a history of Gundaroo I found references to the Gundaroo Railway League and its efforts to get a railway line to Gundaroo. Their efforts were directed in the first instance to having the Main Southern line built through the Gundaroo Valley and then in the 1920's stirrings were made for the branch line to the national capital to be built through the valley.

Of course these proposals were never taken up and the line to Canberra was built from Goulburn through Bungendore and Queanbeyan.

At the time I was conducting my research the N.S.W. Government was coming under increasing pressure to find an alternative to hauling coal from the Western fields to the Port Kembla coal loader through the Sydney area using the Illawarra line.

Several proposals have been put forward, such as a moving beltway and a truck only road. Most of these are from Camden or Picton to the top of the Illawarra escarpment. To get the coal to the coast the upgrading of the Moss Vale — Unanderra line was needed.

While looking at the map for the Gundaroo idea I noticed that the Western Coal fields and Port Kembla could be linked by rail quite easily. I traced a route from Lithgow, west to Tarana then along the Oberon branch. Now looking in a south-easterly direction I found another branch line ending at Medway. This branch joins the Main Southern line just north of Moss vale and serves the Berrima limestone quarries.

What was needed was a link from Oberon over the Great Dividing Range to Medway. This aroused my modelling instinct. Although the route from Tarana to Oberon is only a light branch and is fairly winding, upgrading would allow the heavier trains needed to haul the coal to the coast, incorporating the realistic idea to upgrade the Moss Vale — Unanderra line.

The old shale town of Joadja is not too far off the ideal route, and could probably be incorporated into any medium sized layout. When the layout is running I hope it will reflect the line as it would/could have appeared during the 1960's.

While the idea is not new — Ray Pilgrim used a similar idea for his 'Bylong' layout — it shows how a modeller can come up with a freelanced prototype layout by studying maps and using a little imagination. ▪

VICRAIL 'Z' VANS

The 'Z' brakevan or guardsvan of Vicrail has always been a mysterious piece of rolling stock, mysterious only because of the lack of data though. With more information available a piece of history can be unfolded.

Until 9.6.1925, the Victorian Railways had 550 vans coded 'Z'. These vans were numbered 1 to 550 as it was common in that era to rebuild older guards vans. In this were a number of groups preserved intact.

From 9.6.25, older 'Z' vans were scrapped and not rebuilt whilst new van were built onward from No.551. I suspect this is a decision brought about by the automatic coupler conversion policy of the same time but I have no date for reference. The policy was to construct all new rolling stock with automatic couplers from 1925.

It seems that damaged vans were only rebuilt after 1925 as some rebuilding did occur up to 1942. One van of interest is 'Z 214'. This van was rebuilt at Newport on 21.1.19 and rebuilt again on 13.11.25. It was finally scrapped during 1975.

Four most interesting vans were coded 'ZH' (H — ex Hobsons Bay stock) and numbered 25,27,33 and 34. These vans took the numbers of scrapped vans. By 1914 only ZH 27,33 and 34 were in service. ZH 27 and 33 were scrapped on 15.11.19 leaving ZH 34 on the register. This van formed the consist of the Ballarat breakdown train.

A surprise came in 1923 when the Victorian Railways tookover the Deniliquin & Moama Railway Company on 1.12.23. Listed among the rolling stock were three guards vans numbered simply as VAN 1,2 and 3. Van 3 had a floor area of 130 square feet which happens to match the floor area of ZH 27, 33 and 34. Without further information it seems at this stage that the missing ZH (25) has appeared. If so, is being owned by Hobsons Bay, Victorian Railways, Deniliquin & Moama and finally by Victorian Railways again, a record? Van 3 was scrapped on 5.7.24.

Vans 1 and 2 match the size of newer 'Z' vans. These two vans were renumbered into the two blank spaces left in the numbering sequence by the ZH scrappings of 1919. Van 1 became Z 27 and Van 2 became Z 33, both issued to traffic on 8.11.24. Number 27 was sighted in service during 1981 whilst number 33 was scrapped in 1975.

Peter Vincent.

KADEE COUPLERS for WEICO COACHES

A required objective is to add Kadee couplers to Weico coaches (N scale) while also improving rolling qualities. Here is one method.

It is a hard decision as to whether stock should be authentic, or run well. From ordinary distances my coaches look good, but have the rolling characteristics of bricks, especially around curves.

So, after hacking off the origional bogies and couplers (body mounted), I fitted Kadee four wheel coach bogies, with couplers. Now with one push, because of their tremendous weight, one will travel about 12 ft around 18" and 12" curves.

The bogie change is not apparent from normal viewing distances, but at close distance it is apparent that the coaches aren't looking too good themselves! Mind, if one wanted to, the Kadee boogies could be modified, or the Weico side frames could (easily) be super-imposed over them.

Rowan Cole.

HANDY HINT

A HINT . . . To all those planning a layout, or who have just made the baseboard. Lay an inch or two of expanded polystyrene on top of your chip or fibre board. Not only will this reduce noise drasticlly, but will facilitate the easy modelling of rivers, depressions etc., as all you need to do is to carve them out.

Rowan Cole.

UNCLE TOBY'S SALOON

by Peter Kelly, photo Ian Bird.

When Bill wanted a "Wild West" type saloon for his layout, I decided to experiment with a new type of construction.

In a magazine I saw a warehouse plan which I photostated the front and side of twice. (That's all the plan was.)

The sides and fronts were glued onto cardboard and the window spaces had a line ruled across at the half way mark and a felt tipped pen was used to draw in partly drawn blinds.

Batwing doors were ruled in, side doors inked in, and old time circus signs were put on the front wall.

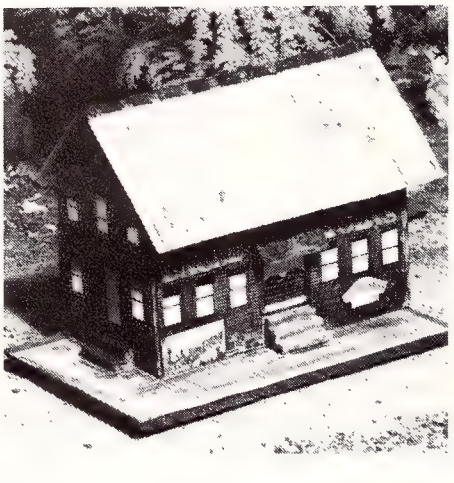
"Uncle Toby's" came from that well known company to give an American flavor.

To finish the saloon, the cardboard sides were braced in the corners and glued on to balsa. Balsa steps were made and put in place.

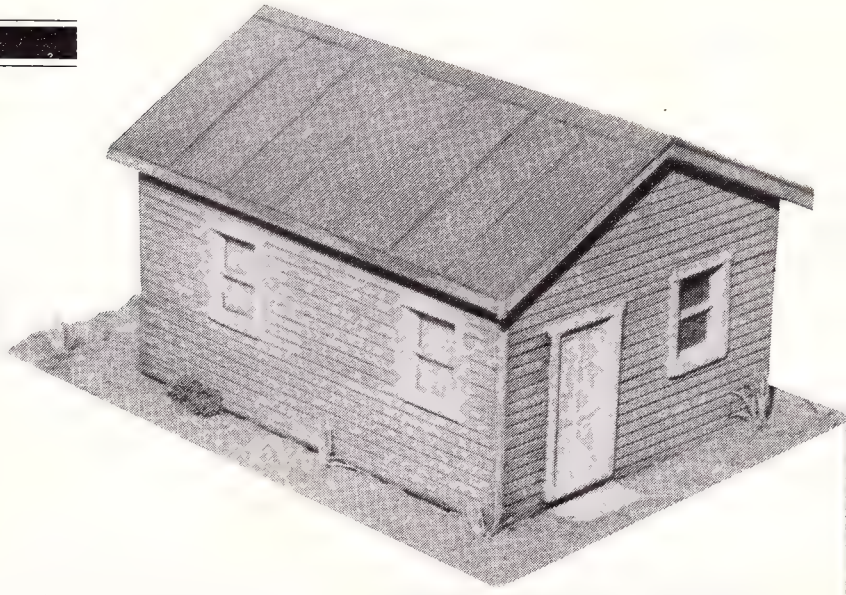
The boardwalk is paper ruled and glued in place.

The roof was made from battery separators and the ridge capping is tissue paper.

Finally, felt tipped pens were used to weather the whole building to an old, faded, years old structure.



HOW THE DISTRICT ENGINEER GOT HIS OFFICE



by Ron Cunningham

With a list of construction projects in the planning stage as long as my arm all eating up scarce resources (mainly time), the provision of a permanent yard office for the engineer on my North Coast — New England division was a long way off.

Or at least that was the case until recently, when a major foul-up in the Design Department resulted in the building of the District Engineer's office ... the subject of this article.

The blunder which led to this situation involved a "flying" visit to Gilgandra about twelve months ago. I was passing through on the way to somewhere else and, as usual, I made a detour to examine the local railway station.

Although of a basic design, Gilgandra Station has several major individualities, which made it an ideal prototype for one of the intermediate stations on my layout. (It is particularly interesting from the rear, a point which makes it ideally suited for locations where the station is to be viewed from the back.)

Approaching darkness allowed only sufficient time for a couple of photographs and the gathering of a few basic measurements before I pushed on to my destination.

It was almost a year before I was able to return to Gilgandra to collect more photographs and measurements from which to build a model.

On my return to Sydney I put the films in for developing but, as is too often the case, impatience got the better of me, and before picking up the photographs I decided to construct at least the basic shell of the station building.

As is my usual method of construction, I laid out all four sides on a sheet of Northeastern scribed siding, removed the window and door openings, cut out the four sides in one piece from the siding, scribed vertical cuts at the four corners and then folded the four sides together to make the basic shell of the building.

This all took about an hour and I then put the result aside to await detailing, for which I would need the second set of photographs.

The next morning, in fact, I collected the photos and that night sat down for further work on the model.

!# SHOCK! HORROR! #!. A major error in the measurements (undetectable from the two photographs I had relied on) had resulted in a model from which I would have to omit the major features that made it so appealing as a modelling project.

My initial reaction was to hit the shell with a hammer, but after suppressing this urge I decided that I might as well salvage what I could.

A quick inspection indicated two plain ends and the rear wall that might be saved for something else. However, a closer examination revealed that the rear wall, with its four windows located symmetrically about the centre of the wall, could be cut in half to give two walls with two windows each. Add the two ends and, with some judicious cutting, a hut with basic dimensions 20'6" x 15'6" resulted.

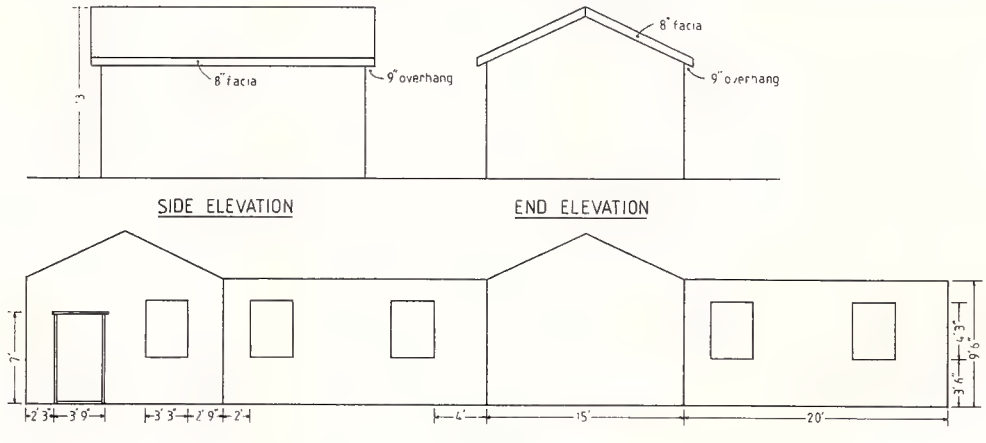
A little rummaging through my photo collection produced shots of yard offices which I had stored away for later modelling. Whilst not identical to any of the huts in the photos, the salvaged walls would be of a similar size and style to several of the huts. I determined to push on, and the model in this article resulted. I don't suggest that you set out to build the model the way I did, but if your District Engineer is complaining about his lack of office accommodation, then here is how you can provide it.

Lay out the four walls on the rear of a sheet of 1/32" thick Northeastern sheet with 1/16" spaced grooves (which represent a scale 6" board approx.). See the accompanying diagram for measurements, but mark out in reverse. Remove the door and window openings as per the plan. Cut out the four walls in one piece from the sheet and, using a small engineer's square, scribe vertical cuts (on the outside) to make the corners. Fold the four walls together to form the basic structure.

Next add the windows and doors. I decided to experiment with Campbell's plastic castings as I had not used them before. I filed the surrounds of the window castings down to a scale 3" to make them more prototypical before gluing them and the door in place. (After painting and weathering I was most pleased with the results and will use them again.)

With the windows and door in place, reinforce the corners and Northeastern timber walls with scrap timber. Offcuts of 3 ply sheet are ideal. Without this strengthening, the Northeastern sheet has a tendency to bow. Fit 1/32" square verticals to the outside corners.

Add the roof next. Cut two pieces of 1/32" sheet timber 21'9" x 9'3" to form the base for the corrugated iron roof. Glue in place and



Window locations can be varied to individual taste.
Note: Drawing represents outer faces of walls.

SCALE HO
1 0 1 3 5 7 9 11 13 15 17 19 21

DISTRICT ENGINEER'S OFFICE

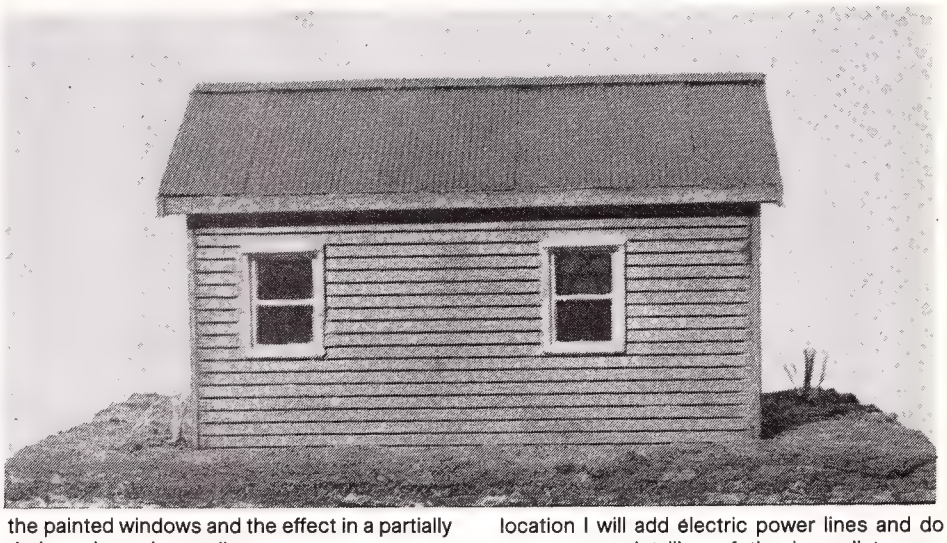
Drawn by P.J.Mustart.

then add the 8" fascia boards, which are obtained by splitting planks from scribed Northeastern sheeting. Finally, add the corrugated iron. As usual, I used Gordon Duncan's corrugated sheet.

The hut should now be painted and weathered. I painted the walls a light green using thin washes of Humbrol No.1 green. I added washes of grey and brown to get the desired aged effect. The roof was given an undercoat of No.20 red and darkened with patches of Humbrol rust. The windows and door were painted white and dry brushed with grey to end up a dirty grey.

Once the painting and weathering is finished, add glass to the windows by gluing clear perspex or acetate to the inside of the window castings.

If you do not intend installing interior lighting then the hut itself is finished. I did want to install lighting so I painted the inside of the hut walls with several coats of thick black paint to prevent light showing through the walls. I then painted the inside of the front and side windows, which will be visible to persons viewing the layout, with Humbrol flesh No.61. This makes the windows appear as though they have blinds on the inside, and hides the lack of interior detail. The lighting still shines through



the painted windows and the effect in a partially darkened area is excellent.

Finally, make a base for the model, add some ground cover and sparse weed growth and the hut is ready for your engineer and his small staff to move in . . . well almost. I want to locate the hut on a part of my layout that has not yet been built. When it's in its permanent location I will add electric power lines and do some more detailing of the immediate area around the hut. In the meantime, it is temporarily sitting on a different part of the layout as proof that even a disaster can turn out alright with a bit of improvisation and imagination.

P.S. Gilgandra Station is again underway and may yet still appear as an article in this journal.

TOY FAIR REPORT 1983

The 18th International Toy and Sporting Goods Trade Fair was held this year at Sydney's Royal Agricultural Showgrounds, over the period 26th February to 2nd March,1983. the Fair was not open to the public.

Whilst the Fair covered just about all aspects of the toy market, it was the model railway side that we concentrated on. This also included associated products, such as road vehicles and scenic items.

Model railways were represented by Hornby Hobbies Ltd. (Hornby), Southern Model Supplies Ltd. (Lima), John.D.Leeman Pty. Ltd. (Lima), Intoy Projects (Mainline) and Zimbler Pty. Ltd. (Bachmann).

Stan McCullum from Hornby Hobbies in U.K. and formerly with Hammant & Morgan was seen at the Toy Fair. He indicated that the H&M Loco Tester had proved to be a very popular product; the HM 5000 controller was not to be made for the Australian market and the HM 3000 controller should be readily available this year.

Hornby are continuing to expand their range, particularly items in B.R. colours. The 1983 catalogue shows the Schools 4-4-0 in BR green, the Class D49/1 4-4-0 in BR black and the Patriot in early BR black. The DMU is also to appear in green livery. The streamlined version of the Coronation Scot 4-6-2 is to re-appear in LMS blue.

The Class 58 diesel electric was on show. Provision is made in this model for double-motoring. The old Caledonian Single has been painted in early LMS colours and will be released as a collector's item, similar to the Rocket. Also on show was a repaint of the Inter City HST power car into the SRA Inter City XPT. A limited production may be done if sufficient orders are forthcoming.

Mainline is now being distributed by Intoy Projects. The GWR Pannier tank is now available in quantity along with the GWR Mogul. The LNER N2 0-6-2 tank, the BR 03 0-6-0 diesel and the BR Class 56 diesel are expected to appear later this year, and hopefully the GWR Dean goods.

A range of carriages and wagons continues to be available including several items of freight rollingstock first seen in the 1982 catalogue.

New products from Lima include the Victorian Railways GY open wagon, a French bogie box van and the show stealer of this manufacturer, the XPT. Regrettably the XPT is only a repaint of the BR Inter City HST in OO scale. Nevertheless, it is not terribly overbearing alongside the smaller HO scale models, and certainly looks the part. The only new loco of significance to appear in the 1983 catalogue is the BR Class 20 diesel, in both the blue and green schemes. Passenger cars and freight stock will be significantly increased with quite a few new models in those ranges.

So far as scenic items were concerned, it was pleasing to see that Burimex is importing the full range of Woodland Scenics. This is starting to appear in quantity in most hobby shops as of late.

Model road vehicles suitable for both HO and OO scales (with licence) were presented for viewing by Matchbox 1-75s and Convoy Series, Mattel Hot Wheels 1/65th and 1/63rd scales, Majorette Series 200 and 300 and various vehicles by Hong Kong based companies. The general theme appeared to be trucks and trailers, or for those who are with it, prime movers and rigs; a great variation from the realistic to futuristic. The cars and commercial vehicles covered a wide selection of makes and models of recent years, whilst remembering that these are considered to be toys by their manufacturers, hence Fast Wheels, zany colours and decals. With imagination, suitable wheels, decals and possible rebuild you have the world of the automobile at your fingertips.

The above products are die cast with plastic add-ons or structural items. Lindberg, of plastic kit fame, produce a series of HO compatible snap-kits of U.S.A. style of commercial vehicles. Very good as is, or altered by kit bashing.

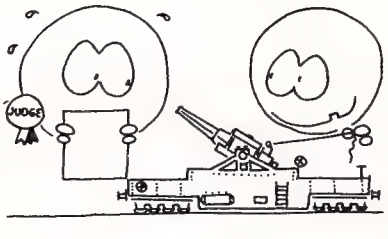
For the followers of TT and S scales a selection from any of the products mentioned above would prove satisfactory.

Modellers in O scale have a wide range of quality items to choose from. Vintage/Veteran to 1983 in cars and commercial vehicles produced by Matchbox Yesteryear and Super Kings, Solido, Eligor, Brumm, Rio, Condor and again Hong Kong based manufacturers. The prices of these products are naturally higher than their smaller scale brothers for here these models are produced for the model car collector and are therefore more realistic in appearance.

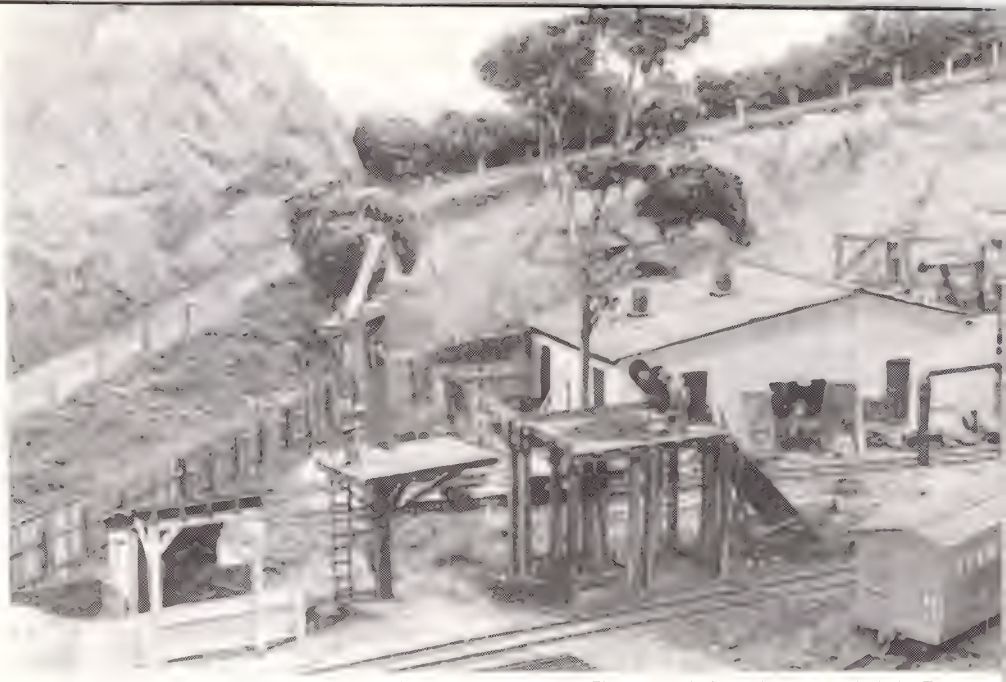
For L.G.B. fans and larger scale a selection can be made from many of the heavy duty metal toys such a Buddy L and Tonka. Not to be forgotten are Britain's large range of assorted tractors and farm machinery or implements. Yes, there is even a Clydesdale drawn hay tumbrel on the way.

There was no sign of vehicles for N or Z scales.

The Editorial Staff.



"This year's trophy for scratchbuilt rolling stock . . . GULP . . . goes to . . .



Steam locomotives require servicing, especially on narrow gauge. This scene is from the module built by Tony Walsham, and it illustrates the care and patience put into the display.

1983 Melbourne Model Railway Exhibition.

This year's exhibition was held on the weekend of the 11th March in the Camberwell Civic Centre. It featured a number of new layouts and new commercial offerings.

The layouts covered the usual range of N scale to O scale, with European, American, British and Australian themes, being displayed for the public to assess. One layout in particular which caught the eye was the Croydon Narrow Gauge Group's HOn2½ modular layout. It demonstrated just what could be done with an overall plan and an enthusiastic group of modellers. Each section of the layout is owned by a member, but will fit into the overall to form a larger layout. Variety in the modules kept the public interested as did the operating tippler, the aeroplane crash, the monk in the hillside cave, and the little man operating the petrol pump. Some electrical faults prevented this layout from really showing what it has to offer.

Video was used on 'Die Furchtbarteuerbahn' to show off that portion of the layout which could not be seen from the front. Large quantities of pine trees, electrical overhead and fast moving trains were the more obvious features of this layout, which is based on Southern Germany.

The commercial events of the last twelve months were reflected in the Australian theme layouts, especially the A.M.R.A. 'Caulfield' layout and the new Melbourne Model Railway Society layout. Both had predominantly V.R. and S.A.R. rollingstock with V.R. steam locos heading their share of trains. The V.R.s modern orange image was also included on both layouts along with a wide assortment of blue and gold engines.

Other new layouts were specifically designed to show the viewing public what could be done using commercially available equipment. Size and complexity of these layouts varies from a simple loop onwards.

Trade stands supported the layouts by presenting a wide variety of products available. New releases, plans and ideas which are to come to fruition in the next twelve months or so were presented for the modellers to view.

The Victorian Division of the Southern Cross Model Railway Association's stand presented OUR magazine from a different angle. They brought together articles of V.R. interest and models built from those articles. A practical demonstration which used the magazine (AMRM) to promote itself proved to be a sucessful experiment.

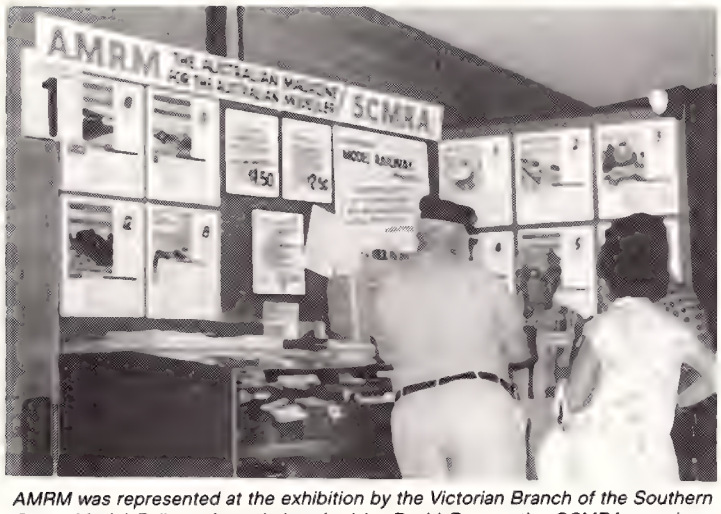
I personally was a bit disappointed at the low number of Australian layouts present, and also the decreasing (??) number of clubs which appear to be participating in this exhibition. S.C.M.R.A., M.M.R.S., and the Croydon Narrow Gauge Group being the only obvious group apart from the Victorian Branch of the Australian Model Railway Association, which were promoting model railways.

To make the Melbourne Exhibition really representative of the hobby, the clubs which participated have to be encouraged to stay, and the other major clubs like Corio, Mt.Waverley, Mont Valley, V.M.R.S., etc. encouraged to be involved.

Phil Jeffery.

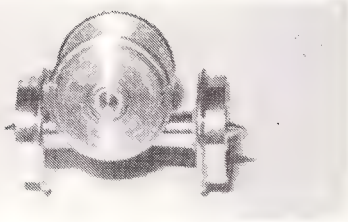
The junkyard scene on the Croydon Branchline Group layout. The exquisite detail of this layout can be seen in this photograph.

Photographs by Bob Gallagher.



AMRM was represented at the exhibition by the Victorian Branch of the Southern Cross Model Railway Association. Led by David Brown, the SCMRA members presented an impressive illustrative display on articles containing Vicrail wagons.

On display at the Melbourne exhibition — Broad Gauge Models 'Colonial Cottage', due for release as a kit, in HO scale later this year.



10.5mm disc wheels for replacement of Lima HO scale wheels by Casula Hobbies, Phoenix Plaza, Macquarie St., Liverpool, 2170. Price: $2.00 per two axles.

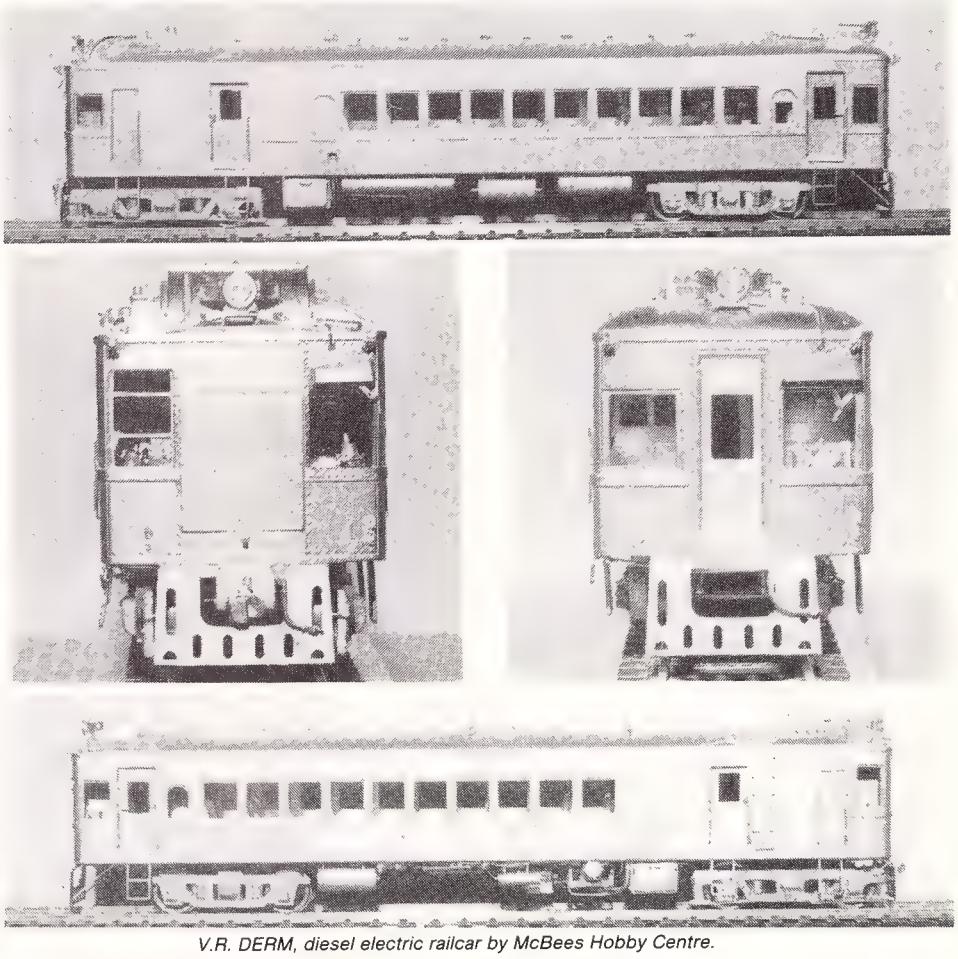
These wheels were reviewed in detail last issue but that review was based on the 26mm and 23.8mm length axles. Since then we have been able to inspect some of the wheelsets designed for use with Lima equipment.

The length of the Lima axle is 24.6 mm and the Casula replacement is 25.0mm long. The diameter of the Lima wheel is 11.5mm while the Casula replacement is 10.5mm and as such has an immediate visual impact when used in the Lima 72'6" NSWR passenger cars, dropping the overall height by 0.5mm. The length of the axles is consistent with a tollerance of 0.1mm.

The real test is operation, and here there is a distinct difference between the standard Lima wheel and the Casula replacement. When fitted to the Lima cars the Casula wheels reduce the drag degree of the car by about 50%. Now this does not automatically indicate that the use of Casula wheels will allow trains to be doubled in length, but the length of the train will increase, and by a considerable margin.

The Casula replacement wheel for Lima rolling stock is of great advantage to the modeller looking for NMRA standard wheels, better appearance and better rolling qualities. These axle sets are also suitable if lighting is required in the cars. It will be necessary to fit the wheels in the correct manner as well as fitting suitable pickups.

Bob Gallagher.



V.R. DERM, diesel electric railcar by McBees Hobby Centre.

Vicrail DERM railcar in HO scale. Manufactured in Korea by Dong Jin for the Australian Locomotive Co and McBees Hobby Centre, PO Box 144, Coburg, 3054. Price: $275.00.

The first DERM (Diesel Electric Rail Motor) or PERM (Petrol Electric Rail Motor) as it was then known was No.55 and was placed in service in 1928. No.55 was imported from the USA and assembled in Melbourne. Subsequently an order for a further 9 rail motors was placed and built at Newport Workshops. Initially they were fitted with Winton petrol engines, but these were replaced after WWII with 275HP diesel engines.

Six passenger carrying trailers were produced but the DERMs were known to haul a variety of rolling stock, including 'C' vans and wheat wagons. The DERMs were initially painted red but this was replaced by a blue and yellow livery during the 1960s. Road numbers were 53, 55, 56, 57, 58, 59, 60, 61, 62 and 64.

The model was based on 59 and 61 as they appeared in service with the V.R. during July/August 1982.

The model was supplied in an attractive blue box which was inserted inside an outer case. Inside the box the model was supported in blue foam. Accompanying the model was a single page of details including prototype notes, assembly/disassembly instructions, servicing and painting details. The latter was also aided by the colour photograph of 59 included in the package. Last, but by no means least is a set of decals, designed and manufactured by Broad Gauge Bodies for the DERM. Decals include yellow lining and chevrons, numbers for all units, as well as class and guard codes.

The model has been fabricated from brass which has been etched, formed, punched and finally soldered together. It was then detailed, no, superdetailed by lost wax castings inside and outside the car. It is not possible to dwell on any section of the detail, as it is all superb and without question a pacesetter for future models. There may be some question as to the accuracy of some of the underfloor piping, but it certainly looks busy.

Detail does include undergear, seating, driving controls, diesel engine, rivets, handrails, doorhandles, lights, ventilators, etc., etc.

The power unit is a SPUD, which quite capably supplies sufficient power to drive the model, and no doubt a small train, over heavy grades. A dummy coupler is fitted to the No.1 end while provision has been made for fitting a Kadee 5 at the No.2 end. Coupler pocket height is correct.

The wheels are RP25 profile but the gauging is a shade astray. The wheels on the SPUD have a back-to-back dimension of 14.65mm, while the trailing truck wheels have a back-to-back dimension of 14.2mm. For guaranteed trouble-free operation it would be wise to bring them all up to the correct dimension of 14.5mm (+ or – 0.05mm).

On the track the model freely negotiates No.4 pointwork, catching only on check rails due to the poor wheel back-to-back dimensions. It has a top speed of 146 mph (234 kph) and a low speed of 6.37 mph (10.2 kph) and a drawbar pull of 32 grams. The model is very responsive to the controller.

Bad features of this model is the speed, both high and low, and the good features are the detail which well and truly makes up for the running quality.

This is a superb model, and as a rail motor, sets the standard for other models. A standard that will be very difficult to beat.

Bob Gallagher.

Vicrail 'GY' four wheel open wagon in HO scale by Lima. Sample made available by Southern Model Supplies Pty Ltd, PO Box 112, Daw Park, 5041. Price: $5.95.

The GY wagon is a four wheeled open wagon of all steel construction that has been the mainstay of the Victorian Railways goods fleet for 40 years. The GY class was one of the largest classes of wagons on the V.R., second only to the I/IA group. A detailed listing of the GY, including colour photographs is printed in Issue 100 of AMRM, which is still available from the Back Issues department.

The GY was used for wheat traffic, and when in use was covered by a tarpaulin. Out of season the tarps were removed and the wagons used for general traffic.

The model, produced from injection mouldings, is representative of the last group built in the 1948-58 period and coded HY. They were converted to GYs from 1962 onward.

As supplied the model is an open wagon with a tarpaulin fitted on top. The body of the wagon is very close to scale size. The detail included the (interior) lashing bar dimple, tie down rings, moulded handrail and tarp support pivot points on the end panels.. The end gunwale rail is notched for the tarp support. Shunters steps have been supplied in the correct positions.

The sides are 1.4mm thick and the end gunwale 2.4mm wide. The body is moulded in a bright yellow plastic which is a shade on the bright side. Lettering has been applied in black, and on the model appears to have been worn away. The review sample is the same sample that has been on display at two major exhibitions during March, and handling could have caused the problem.

The body is clipped onto the underframe, and removal is relatively easy.

The tarpaulin, a press fit onto the wagon, has been moulded in a deep olive green. The shape of the tarp, and the moulded creases give little doubt as to what it is. These creases are virtually impossible to obtain by any other meduim. Except for the end sections, the tarp has a virtual straight edge and naturally does not cling tightly to the sides of the wagon. If it did it would not be removable.

The underframe at first appears to be a standard Lima underframe, but closer inspection indicates that it is representative of the V.R. underframe with a few exceptions. The underframe is moulded in red plastic and all wheels have been fitted with brake shoes. There is also a handbrake lever each side, something the prototype did not have. The thickness of brake linkage is on the coarse side.

The axle boxes, regrettably, are not representative of the GY boxes, and this does detract from the model. The main offender is the springing, which has been given an unusual curvature. As such, the journal has been pushed downward and the axlepoint is low down in the journal, giving the underframe section of the wagon an additional 3mm in height. The wagon is fitted with the Lima 11.5mm wheels with the 1.5mm deep NEM standard flanges. Allowances have been made so that the wheels can turn without touching any of the underframe, and this is possibly the cause for the overall problem. As such the wagon stands 11'10" high on the track, 3" higher than it should.

The underside of the wagon is detailed with a

Lima 'GY' with and without tarpaulin.

main centre beam and side gussets while the standard Lima coupling is fitted. A metal weight is fitted between the underframe and the body. The model rolls freely and tracks well through points. The model weighs 40 grams.

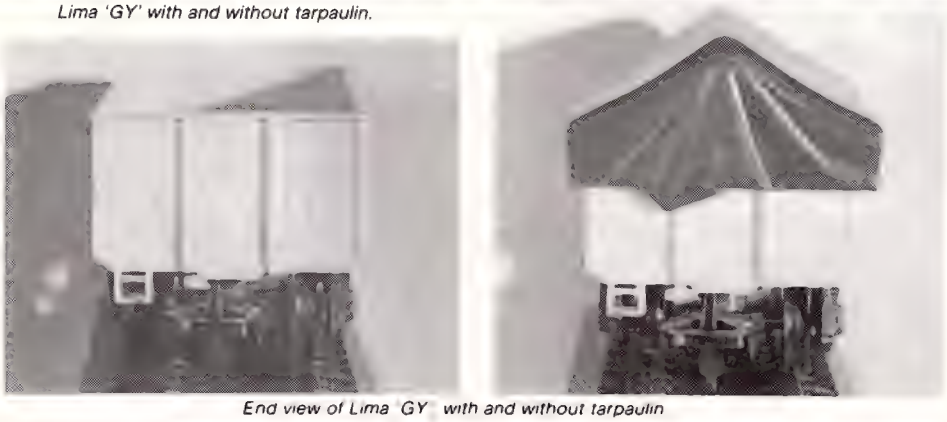
There is little doubt that this model has been designed for the mass market, and on this aspect it is a fine model. It looks like a 'GY', especially the body and tarpaulin section. The droop in the centre of the tarp is very prototypical. The lettering on the side was correct for current practice.

The scale modeller, however, may be a little fussy, and here the model can be modified with relative ease. Smaller wheels, with the more commonly used RP25 contour, can be fitted, not only reducing the height of the wagon but also permitting it to traverse all code 100 and smaller track. With 10.5mm wheels fitted, only a little modification is necessary to fit the commonly used Kadee No.5 coupler.

The attractiveness of this model is not only the appearance but also the price, which would not be prohibitive if large quantities are required. Modellers choosing to build up a fleet can use BGB decals to alter the road numbers. NSWR and SAR modellers will also observe that the GY is similar in size and shape to the U/K wagon and Of/Obf wagon, and a quick paint job would create a very close lookalike for the layout.

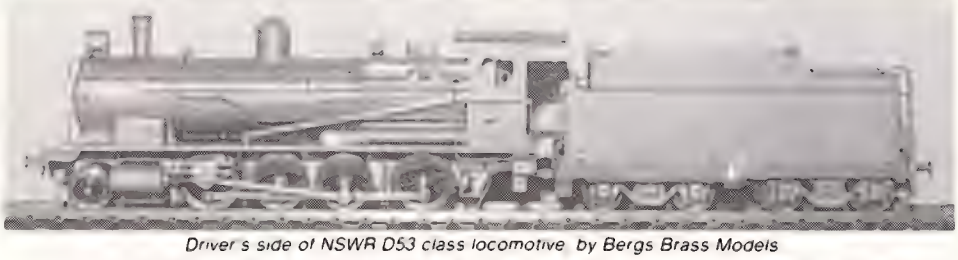
Summing up, it may not be as accurate as some of the highly priced, limited run brass locomotives that are on sale in Australia today, but it is as good as can be expected from the big manufacturers whose objective is to supply the toy market with a world wide wheel and coupler standard.

Bob Gallagher.



End view of Lima 'GY' with and without tarpaulin

Fireman's side of NSWR D53 class locomotive by Bergs Brass Models



Driver's side of NSWR D53 class locomotive by Bergs Brass Models

NSWGR D53 class goods loco in HO scale. Manufactured in Japan by Kumata for Bergs Brass Models, PO Box 527, Parramatta, 2150. Price: $410.00.

The Class TF(939) 2-8-0 goods locomotive was designed by the NSWR as a modification of the successful T(524) class loco. The Clyde Engineering Co. delivered the first engine in mid 1912 and by late 1919 a total of 190 were in service, 30 being built by Eveleigh Workshops. The class was given the code D53 in the 1924 reclassification and the class was numbered 5301 to 5490.

For operation the class was grouped with the D50 and the D55 2-8-0 Consolidations, and were the main goods locomotive until the introduction of the D57 class in 1929. The class saw service until the last days of steam. 5367 and 5461 have been preserved. The livery of the class was black.

As supplied in a foam lined stout card box, the model was accompanied by a colour photo of a weathered 5452. There were however no additional screws as is now custom with brass models. The model as supplied is representative of the D53 class in it last form, and is fitted with a standard turret tender.

The model has been fabricated in the usual manner, from brass shapes, etchings and pressings and is detailed with lost wax castings. The model is finished in a dull bronze lacquer.

The mechanism is powered by a can motor to the third driving axle via a hung gearbox. Driving wheels are sprung in the chassis. The wheels are to RP25 profile, but the tyre width (2mm) and thickness (1.2mm) is on the coarse side. The driving rods and valve gear are functional, pivoting with vertical wheel movement, but lack any detail, although the Laird crosshead is well produced and operates effectively. Fluting on the driving rods is so fine it is virtually invisible. The front pilot is lightly sprung, and tracks very well. All wheels, including the flangeless centre drivers, have the correct back-to-back dimension.

The loco underframe is fitted with brake shoes, sand pipes and brake cylinder, and this degree of detail has been carried up onto the well manufactured body. Detail on the loco includes, boiler bands, washout plugs, very fine rivets, marker lamps, conduits, whistle, etc. The steam dome is fitted with a top opening and valve and the headlight with the lens hinge. The model is fitted with pop valve type safety valves instead of the more common Ramsbottom type.

D53 tender and loco footplate.

Front and rear of D53 class loco.

This degree of detail accuracy however has not been carried onto the chimney. It is simply the wrong shape, and tends to spoil the overall image of the model. Another questionable point is the row of rivets along the top of the boiler.

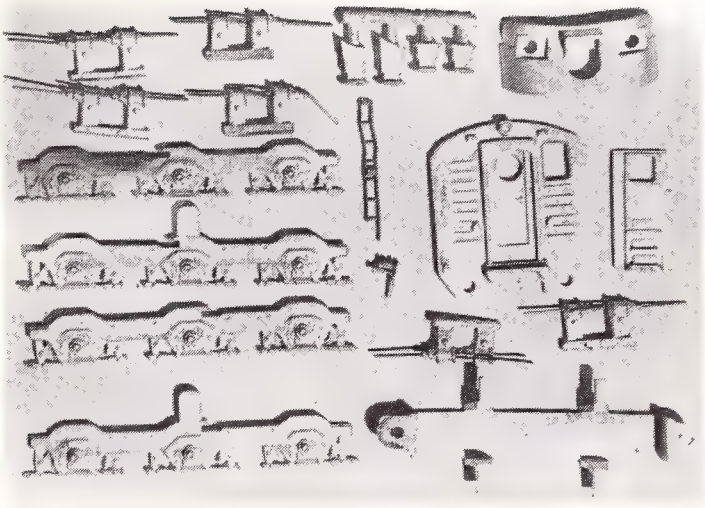
The cab is detailed with a backplate, chairs, etc, but the detail on the backplate appears to have been cast-on in place and is slightly oversized. Research also indicates that the incorrect regulator and firebox door have been fitted. The loco is fitted with a hinged footplate that does sit onto the tender when coupled in the first hole in the draw bar, and it does permit the loco to run without instantly shorting out.

The tender is mounted on unequalised bogies, the sideframes of which reflect the correct profile. Detail is complete including full coal plate and tender rear components, including ladder, marker lamps and conduits. All items appear correctly scaled. The tender is fitted with the storage boxes in the coal plate and with a single brake cylinder under the running board. There should be two brake cylinders on a turret tender.

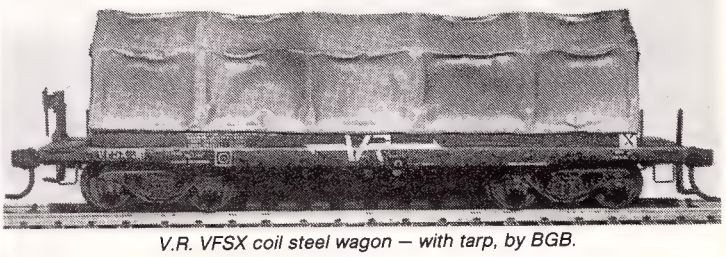
Overall, using the Data Sheet plans as a guide, the model is very closely scaled. The loco is a shade overlength, which is acceptable and all other detail items meet current day standard except the stack and the air compressor, which lacks any air cooling fins. Bergs Brass Models advise that a new stack has been ordered and will be made available to all purchasers of the model once the part is available.

Unfortunately the overall assembly quality is not very good. The dull bronze finish is not heavy enough to hide the blobs of solder that secure some detail in place. On the review sample, one marker lamp is angled toward the ground, the offender being a blob of solder. Further to this, one side of the tender is bowed suggesting that the footplate on the tender was oversized and forced into place bending the side of the tender in the process.

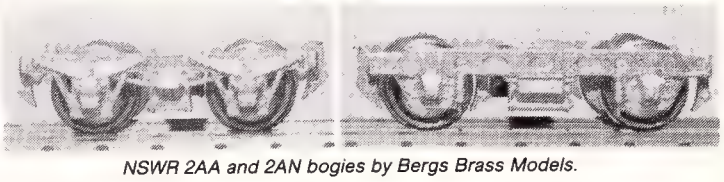
It is on the track however, that this model really shows its wares. The mechanism is dead silent, responds positively to the controller and it traverses



Parts for the Mansfield's 42 class dressup kit.



V.R. VFSX coil steel wagon — with tarp, by BGB.



NSWR 2AA and 2AN bogies by Bergs Brass Models.

complicated trackwork with ease. It can freely negotiate No.4 pointwork. It has a drawbar pull 37 grams, a top speed of 55 mph (88 kph) and a low speed of 0.39 mph (0.67 kph). It actually took over 4 minutes for the model to crawl 0.5 metre, straight out of the box. The performance figures suggest that this loco will not only match the Bergs D50 in power, but also in operation, and the D50 has a fine reputation as a good worker over many trouble free hours.

The highlight of this model is the closeness to scale dimensions and the overall operational qualities. The low point is the incorrect stack, poor assembly and incorrect detail components. These aspects all go toward spoiling the Beyer Peacock style appearance.

These comments suggest that this model is not up to the present day standard, but this is belied by the accuracy of most detail items and components. Regardless, like its D50 class sister, it will doubtless become the workhorse on many layouts.

Bob Gallagher.

S.R.A. of N.S.W. 42 class detailing kit in HO scale by Mansfield Hobbies, 100 Pacific Highway, Waitara, 2077. Price: $12.50.

The 42 class was introduced to the then N.S.W.G.R. in December 1955. There were six in the class, numbered 4201 to 4206. They were the first diesel loco on the system to have the General Motors style nose-cab. The locos were single ended in that they only had a hostlers cab at the No.2 end and could not be run backward hauling a train. They have remained in service to the current day, being taken out of service due basically to the economic recession and the surplus of locomotives.

In reality this kit is a dressup kit, based on the Lima 42 class body. It can also be applied to the Lima V.R. 'S' class loco body. In essence the parts have been available for some time as individual components, being covered in the Review pages of the February 1983 issue.

The parts now, are being packaged together with a detailed instruction leaflet. Included in the package are bogie sideframes, bogie brake cylinders, metal wheel retainer, front pilot and buffers, rear end panel and buffers, right hand cab door, rear end ladder and horns. All are white metal castings except for the last two items which are lost wax brass castings.

The illustrated instructions are clearly printed and include some crude but effective photographs which detail the use and assembly procedure to detail the model. Basically all components fit where they should with only a little filing being necessary. Body putty should be used to fill any unwanted gaps.

The only aspect that this kit does not cover is the additional side window that was added to the class many years ago. The provision of this window would make the 42 class a present day loco, although by the time this issue appears in print they should be all out of service.

The kit is obviously designed for the modeller who enjoys kitbashing, and on this aspect the kit must be considered successful. A high degree of skill is not necessary to complete the modification, but the finished product will reflect the work put into the conversion and the final paint job.

A very usefull addition to the local scene.

Bob Gallagher.

NSW passenger car bogies in HO scale. Manufactured by Samhongsa, for Berg's Hobbies, 261 Church Street, Parramatta. 2150. Price in text.

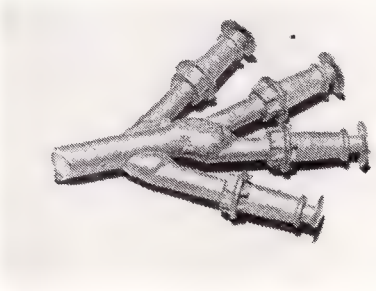
The various passenger cars which comprise the NSW fleet are many and varied, ranging in lengths from 40' to 72'6". Naturally the bogies also vary in length, from the smaller and numerous 2AA type with their 5'9" wheelbase to the six-wheel 3AG type with their 12' wheelbase.

The two types under review (the 2AA at 5'9" and the 2AN at 8') could best be described as being used for the shorter cars (40' — 50') and medium (50' — 60') cars respectively. Both are steel bogies.

The bogie side frames are of coined brass and are exceptionally well detailed. They contain all rivet and spring detail and conform in all physical respects to the prototype. Brake shoes are fitted in line with the wheels. The bolster is of stamped brass and is soldered to the side frames. The bogies are not equalised, but they do sit flat. Wheels are 10.5 mm nickel plated brass, to RP25 contour, on nickel silver axles with rounded ends. One wheel per axle is insulated, naturally with both insulations on both sides of the bogie. All wheels measure correct in back-to-back dimensions on the NMRA gauge.

With the quality kits now on the market, the NSW prototype modeller is obliged to seek good, reliable bogies. From experience I have found these brass ones (plus the associated 2AE set also from Berg's) to meet those requirements. They sell for $8.95 per set and are value for money.

Allan Brown.



Buffers for V.R. Z vans in HO scale by Tyren Distributors, P.O. Box 144, Coburg, 3058. Price: $4.00.

These buffers were produced for the McBees V.R. 'Z' van by The Model Co., and have been released on the market as separate items for the benefit of scratchbuilders and kitbashers. The four buffers are still attached to the bronze casting sprue and have the features of buffers in modern day usage in they have notched heads providing for diaphram clearance.

Each buffer is 8.25mm long while the body is 3mm dia., the shank 1.3mm dia., the head 3.6mm wide and the mounting shank 1.5mm diameter. A very useful addition for the scratchbuilder.

Bob Gallagher.

Vicrail 'VFSX' coil steel wagon kit in HO scale by Broad Gauge Bodies, PO Box 6, Marden, 5070. Price: $11.25.

This kit is the tarped version of the 'CSX' kit reviewed last issue. The prototype information was also included in the CSX review.

This kit (BGB No.BK30), is supplied in a poly bag with a card top. Components included are identical to that supplied with the CSX with the exception of a new style cradle and the addition of the green preprinted tarpaulins, cast tarpaulin supports, additional wire and a bending jig. The instructions again are the same as for the CSX and are very useful.

Assembly detail applying to the CSX also apply to this model. The manufacturer has made provision for the modeller to choose the final appearance. The model can be finished with the wire tarpaulin supports visible or tarpaulins covering the wagon. As the cradle on the VFSX is different to the CSX modellers may take the opportunity to build two VFSX models, one with a tarpaulin, and one without. To form the wire tarpaulin supports, a jig is provided and is very useful. If the wagon is to be covered with tarps, the cast supports are provided. They are used instead of the wire supports and serve to hold the tarps in place firmly.

A very good model can be produced if the final application of the tarpaulin is realistic. The final finish will reflect the degree of work put into the model.

Graham Ball and Bob Gallagher.

N.S.W.R. 'KF' flat wagon kit in HO scale by Rails North Models. Available from Casula Hobbies, Phoenix Plaza, Macquarie Street, Liverpool, 2170. Price: $7.95.

The KF wagon was first introduced in the 1940s as an all purpose vehicle for the hauling of farm and military equipment, etc. A plan and photograph of this vehicle appeared in AMRM, September/October 1977 and May/June 1981. There were two styles having capacities of 20 or 26 tons.

Subsequent KF variations included the fitting of container mounts for carrying ISO containers. These were given the classification of CKF. The KF wagons carried various road numbers. The model represents KF 6963, a 26 ton unit.

The kit under review was packed in a poly bag with a cardboard label stapled to the top. A typed instruction sheet was supplied which contained two drawings as a guide to assembly. Parts included were a sub-floor, decking, axle boxes, brake wheels and wire for underfloor detail. The parts were found to be fairly clean of flash and showed no air bubbles. The modeller would need to supply wheels, bearings, decals and couplers.

Construction is reasonably straight forward and the kit goes together quite well until the detail is added to the underbody. The instructions indicate to add the detail, but the diagrams do not indicate the correct position. The uncoupling rod is shown in the diagram as running along the buffer beam above the coupler, while the plan in the SRA Freight Wagons book show it running from the side of the wagon to below the coupler. A little confusing.

While this should be an easy kit to assemble it is made difficult by the poor instruction leaflet, however despite these comments a pleasing model can be constructed.

John Casey.

Vicrail VLCX (with VLEX pattern doors) kit in HO scale by Broad Gauge Bodies, PO Box 4, Marden, 5070. Price: $8.50.

The VLCX is the standard Vicrail louvre van and

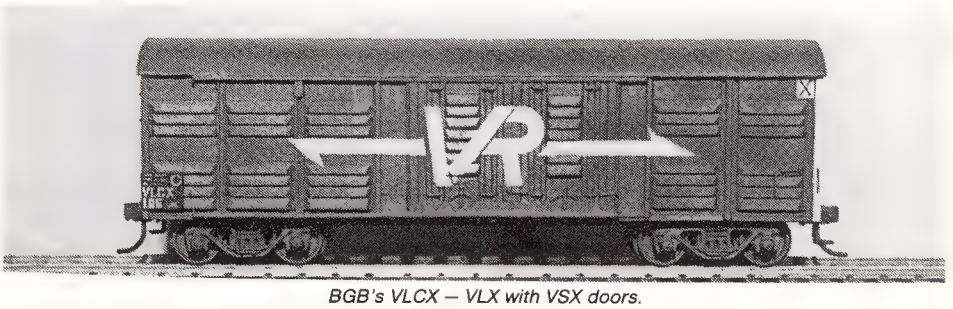
over the years many modifications and variations have been applied to what was the VLX louvre van. The VLX as a BGB kit, was released late 1981 and reviewed in the December 1981 issue. This kit is basically the same, except that the VLEX (VSX) pattern sliding doors have been fitted.

As supplied the kit is the same as the VLX kit, and includes all relevant parts and detailing components. Polyester castings make up the bulk of the kit, and in this instance the castings, while being free of flash and defects, were very sticky. The fact that they arrived at the peak of the very humid weather may have had some bearing on the problem. Before assembly took place the various castings were painted. Parts were handled sparingly before this painting and left to cure for a few days before assembly commenced.

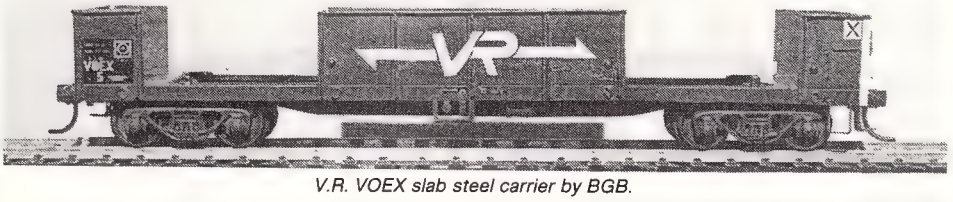
Assembly was straightforward except when fitting the timber roof section, the profile of which did not match the profile of the ends. The profile of the timber roof was altered with sand paper. The floor also required altering in that it was too wide.

Overall, despite the problems encounted, the kit was easy to assemble and makes up into a very fine model. The decals supplied assist to complete the model to a very high standard.

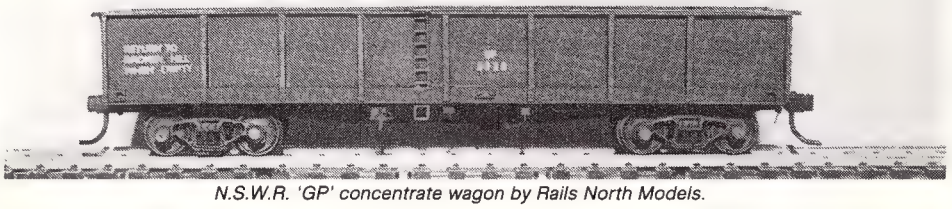
Graham Ball and Bob Gallagher.



BGB's VLCX — VLX with VSX doors.



V.R. VOEX slab steel carrier by BGB.



N.S.W.R. 'GP' concentrate wagon by Rails North Models.

Vicrail VOEX slab steel wagon kit in HO scale by Broad Gauge Bodies, PO Box 4, Marden, 5070. Price: $8.50.

The VOEX is a modified 'E' wagon and is used to carry slab steel from Albury to Lysaght's rolling mills at Hastings. The slab steel is transferred from standard gauge rolling stock at Albury. The wagon is basically an 'E' wagon without the doors, but is fitted with bolsters and interior end beams. There are 9 in the class and are numbered 1 — 9. The class is painted in the standard V.R. freight red.

The kit is supplied in the usual manner of a poly bag with a card top. The polyester castings are accompanied by the detailing components, a set of decals and a detailed assembly instruction leaflet. Despite the attention to packaging, parts of the kit were broken and like the VLCX the castings were very sticky. The parts were undercoated before assembly and left to dry.

This kit was made from a single side and the detracting aspect is the fact that the load compensating and release lever, on each side of the wagon does not line up. The instructions were a handy guide, especially the prototype notes and the photograph, the latter of which was a little dark on the underframe.

Assembly was a little fiddly, and this was not helped by the broken parts. Despite this, when assembled the model became very sturdy. The decal for the reporting board was difficult to position until the interior tiedown indent was removed. As the photograph shows this makes up into a very fine model, and the finish will reflect the attention given during assembly.

Another unusual wagon from BGB, a wagon that clearly illustrates the load being carried.

Graham Ball.

S.R.A. of N.S.W. GP open wagon kit in HO scale by Rails North Models. Available from Casula Hobbies, Phoenix Plaza, Macquarie St., Liverpool, 2170. Price: $12.00.

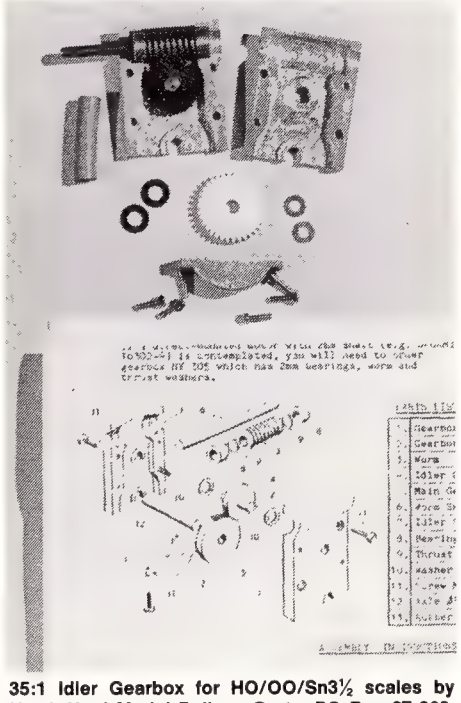
The GP is a 'G' wagon with the side doors sealed and the floor trap doors either sealed or filled in. Some wagons have been rebuilt in a similar style to the 'CG' wagon, without doors or openings in the sides. The 'GP' is used to carry ore concentrates from Cobar to Port Kembla, and from Broken Hill to Cockle Creek. They are also used to carry timber pit props from Herron's Creek back to the mines. The wagons have been painted gunmetal lacquer (grey), black, PTC blue and the present red livery.

Being modified from within the 'G' wagon class, road numbers are various, and it is interesting to note that modification appears to be continuous. In 1969 there were 131 on the register, in 1977 125 and in 1982 133 wagons.

As supplied in a poly bag with a card top, the kit comprises epoxy castings along with wire for detailing and a typed instruction leaflet, illustrated with diagrams. The kit falls together and all parts fitted, the floor only requiring some filling. Detail was very good and the wagon shows a good representation to the rebuilt version of the prototype. Some care should be taken with the castings, for on the review sample the end sections were so fine that they permitted light to penetrate.

When built up to the correct 8'6" height on the bogies, the wagon attained the correct height for the Kadee couplers and also gained the prototypical appearance. A very fine model, that looks in place as a single unit or in a block train. The standard of the completed model will reflect the attention paid to assembly.

Graham Ball.



35:1 Idler Gearbox for HO/OO/Sn3½ scales by North Yard Model Railway Parts, PO Box 27-368, Mt. Roskill, Auckland 5, New Zealand. Price: $NZ13.20.

Idler gearboxes are used in model steam locomotives between the motor and the final drive on the axle. The idler box uses two or more gears to gain the required ratio, whereas the normal gearboxes only use a single gear. This box is part No. NY 310, and was designed for use with a Sn3½ scale N.Z.R. 'A' class locomotive kit, soon to be released by North Yard. At present the gearbox is only available by mail from New Zealand.

The gearbox is supplied in a poly bag containing all the components for assembling the box, including a page of detailed, illustrated assembly instructions. The body, supplied in three parts is diecast zinc, all holes being drilled and tapped for size. The main drive shaft and worm are steel, the gears delrin and the bearings brass. The screws are plated brass, the washers fibre and the drive shaft coupling rubber.

Dimensionally, the assembled box is 9mm wide, 21mm deep and 33.5mm from the lower edge of the gear housing to the top of the box. The dimension between the final driveshaft and the primary drive is 20.6mm. The final drive gear is designed for a 3mm dia. axle while the primary drive or worm shaft is 2.38mm (3/32") dia. and the motor can be coupled via the rubber tube or if having the correct size shaft, directly coupled.

North Yard's design, provides for the modeller choosing to use the high quality Sagami motors. For this box a 2.4mm dia. shaft (Sagami 20322-9) can be direct mounted if the worm gear and the bearings are reamed out to size. North Yard will perform this task if requested at time of purchase. Sagami 2.0mm dia. shaft motors can be used with the North Yard NY 305 gearbox.

The instruction leaflet details assembly, and it is very easy to follow. Securing the worm gear is via Cyanoacrylate (ACC) adhesive, soldering or by punching the shaft. The man gear is drilled for a press fit onto a 3.0mm axle, and a Romford axle meets the dimensional requirements. Overall assembly was very easy.

Unfortunately there are a few restrictions in the use of this gearbox, the main one being that the chassis of the locomotive must use the keeper plate method of retaining the driving wheels/bearings in place or the loco chassis must be designed for disassembly.

This gearbox is designed for use with quality motors and it will supply a reduced speed at the track, enabling the modeller the benefit of fine control. Hopefully we will see this product on sale in Australian hobby shops soon, but in the meantime Australia Post can assist with delivery of this well designed product.

Bob Gallagher.

N.S.W.G.R. C36 class locomotive (round-top firebox) in HO scale. Manufactured in Korea by Samhongsa for Bergs Brass Models, P.O. Box 527, Parramatta, 2150. Price to be announced.

The C36 class was introduced to service on the N.S.W.G.R. in 1925. It was the first locomotive introduced to the system in the new (1924) reclassification and with a newly styled turret tender. The 4-6-0 locomotive was designed for express duties with the capabilities of being able to make 100 mile (160km) journeys non-stop.

Ten locomotives were built by Eveleigh Workshops, while the remaining 65 were built by Clyde Engineering. The class were numbered 3601 to 3675, the last of the class entering service late in

1928. A feature of the engine was the curved boiler, which had a round-top firebox. This characteristic appearance gained the name of a 'Pig', a nick-name which has stuck to the class to this present day.

The class maintained this appearance until 1953, from when new boilers with Belpaire fireboxes were fitted, along with a new cab and other mechanical improvements.

Generally the class were painted black but some members of the class were subjected to livery variations. This included 3608 and 3609 being painted green in 1934 for use on the Duke of Gloucester Royal Train. In 1935 3608 and 3609 were given curved nameboards with the names Hunter and Hawksbury respectively applied.

By 1943 the following class members were painted green:- 3603, 3608, 3609, 3611, 3613, 3616, 3619, 3628, 3629, 3633 to 3635, 3637, 3638, 3640, 3642 to 3644, 3649, 3652, 3653, 3660, 3661, 3666, 3669, 3671 and 3674. The model is based on the C36 with a round-top firebox. The model was supplied in a stout card box lined with grey foam. Inside the box, packed in a poly bag, were two inscribed builders plates for the tender sides, and a shunters grab iron for mounting on the front buffer beam.

The review model was an advance production sample. This model was based on the production run of the Belpaire version of the C36, the review of which follows.

The model has been fabricated from brass etchings, castings and milled frames. A can motor drives the centre axle via a hung enclosed gearbox. Driving wheels are stainless steel and the spoked inserts appear to have the correct spoke profile. Valve gear, motion and drive rods are detailed and correctly sized. The overall drive is sprung lighter than usual, and the wheels actually move vertically while the model is in motion. Brake shoes have been fitted and are in line with the driving wheels.

The loco body has captured the shape of the prototype, and overall almost every item of detail has been included. Omissions include the rivets around the cab window and the builders plate on the cab side. Back plate and cab detail appears to be complete and accurate, right down to the timber floor and the seating. The front buffer beam is fitted with a sprung hook coupling. Mounting a Kadee would be very difficult, but then the prototype did not have an auto coupler on the front.

The detail on the tender continues the trend set by the loco, and there is little to be questioned. Features include the full coal plate detail, sprung buffers, electric conduits, automatic staff exchange equipment equalised tender bogies and correct riveting. Some bad points include the omission of a tool box on the tender and the bogie castings which lack the depth of detail on the prototype. There is provision for a Kadee No.5 on the rear buffer beam, two mounting screws being provided.

Dimensionally, the model meets all the requirements. When scaled against a Data Sheet plan the model is accurate in almost every point. Overall assembly is excellent.

On the track the model has the usual problem from Samhongsa. The wheels are out of gauge, and the model has trouble passing through check rails without either stalling or causing an electrical short circuit. The back to back of the wheels varied from 14.2mm, through 14.3mm to the correct 14.5mm. Once the problem is corrected the quietness and smoothness of the model can be fully appreciated.

Response to the controller is definite. Top speed was 116 mph (186 kph), low speed 1.26 mph (2.02 kph), draw bar pull was 52 grams and the model, on the second hole on the draw bar can negotiate No.4 pointwork.

Bad features include the bogie side frame detail, the incorrect back to back gauge and the lack of tool box. Good features include the overall detail and the smooth running. A superb model.

Bob Gallagher.

N.S.W.G.R. C36 class locomotive (Belpaire firebox) in HO scale. Manufactured in Korea by Samhongsa for Bergs Brass Models, P.O. Box 527, Parramatta, 2150. Price: $420.00

When fitted with Belpaire boilers (see previous review), the C36 class took on a different appearance. Virtually all evidence of the humped back boiler had disappeared and a new style cab was fitted. A further addition was the oil lubrication turret, positioned on top of the boiler behind the smoke stack. All class members were converted except 3622 and 3663. 3661 was the last locomotive reboilered in late 1957.

Further developement of the class was the use of a Geisel exhaust ejector to 3616 in 1957, and D58 class power reverse equipment to 3638, 3642, 3644, 3651, 3652 and 3654 in 1968. The withdrawal of the class commenced in 1958 and was completed in September 1969 when 3651 was scrapped. 3609, 3616 and 3642 have been retained for preservation. In service the class were all painted black.

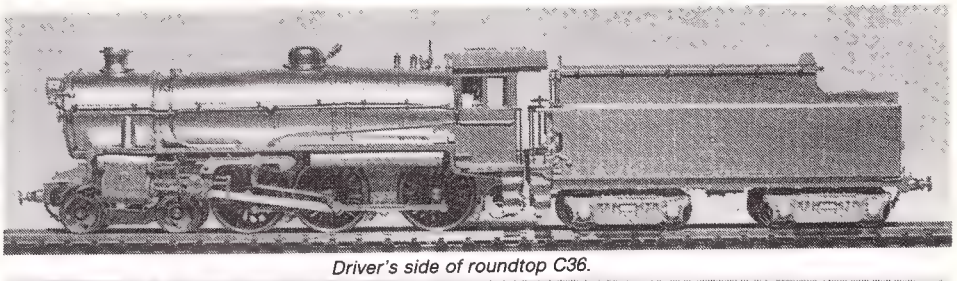
After the arrival of the C38 class the C36 was replaced as the main passenger locomotive and the class was used for general duties, including pickup goods. This latter duty however caused a few problems and the Franklin power reverse system off the D58 was added. The highlight of the last days of steam was the use of double headed 'Pigs' on the Main South, a spectacular which ceased in June 1969, when many of the class were withdrawn in mass.

The model is based on the C36 after modification and before the addition of the power reverse equipment. The review model was an advance production sample.

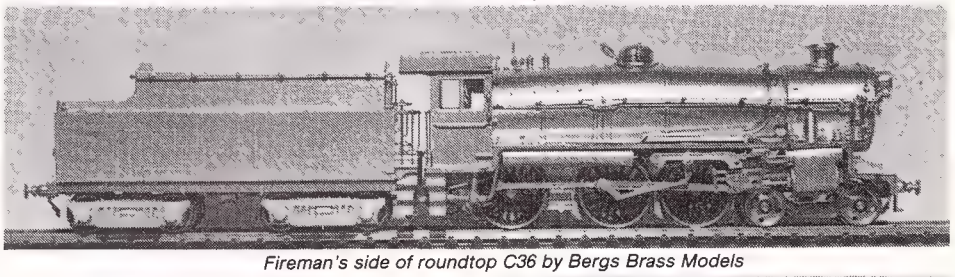
This model, naturally has many of the features of the round top version, especially with the drive, mechanism and manner of presentation. Basically the below footplate level on the loco and the tender are the same. It is above the footplate that the difference is very noticeable.

The shape, dimension and detail of the loco appears to meet every requirement. Features include, pivoted regulator linkage, oil turret, steam turret on firebox, whistle wire, washout plugs and riveting.

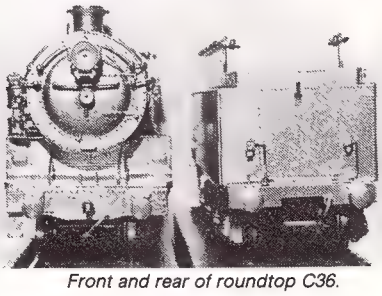
Detail in the cab is very fine and includes virtually every detail item including the correctly positioned regulator, gauges, gauge glass drains, seating and



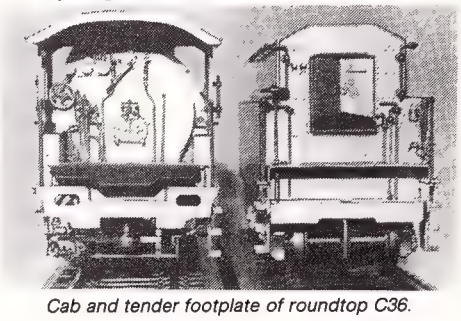
Driver's side of roundtop C36.



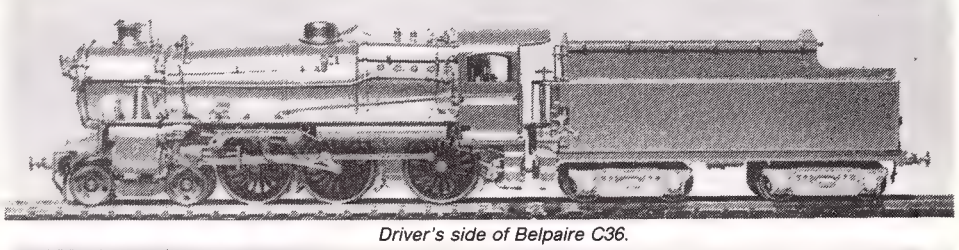
Fireman's side of roundtop C36 by Bergs Brass Models



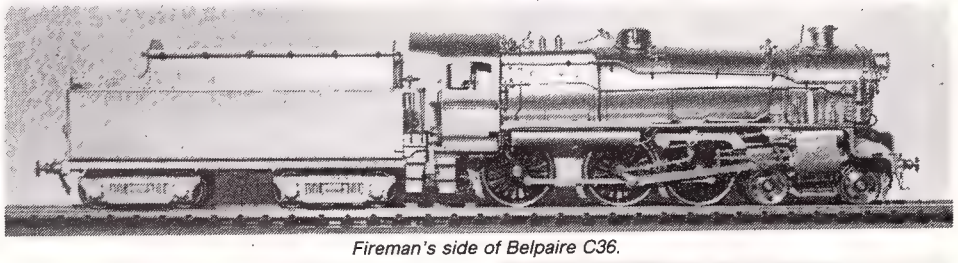
Front and rear of roundtop C36.



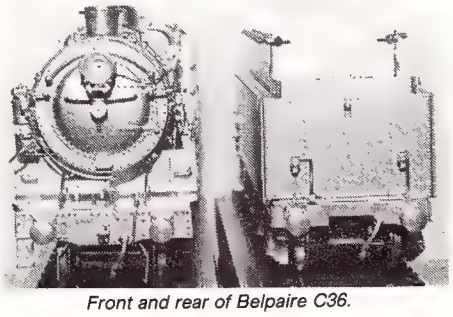
Cab and tender footplate of roundtop C36.



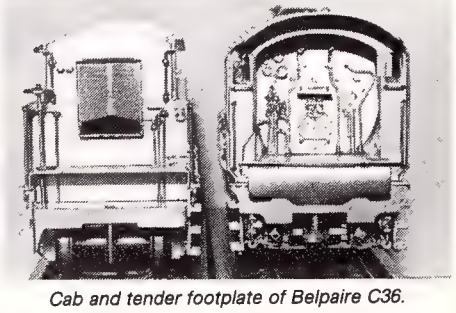
Driver's side of Belpaire C36.



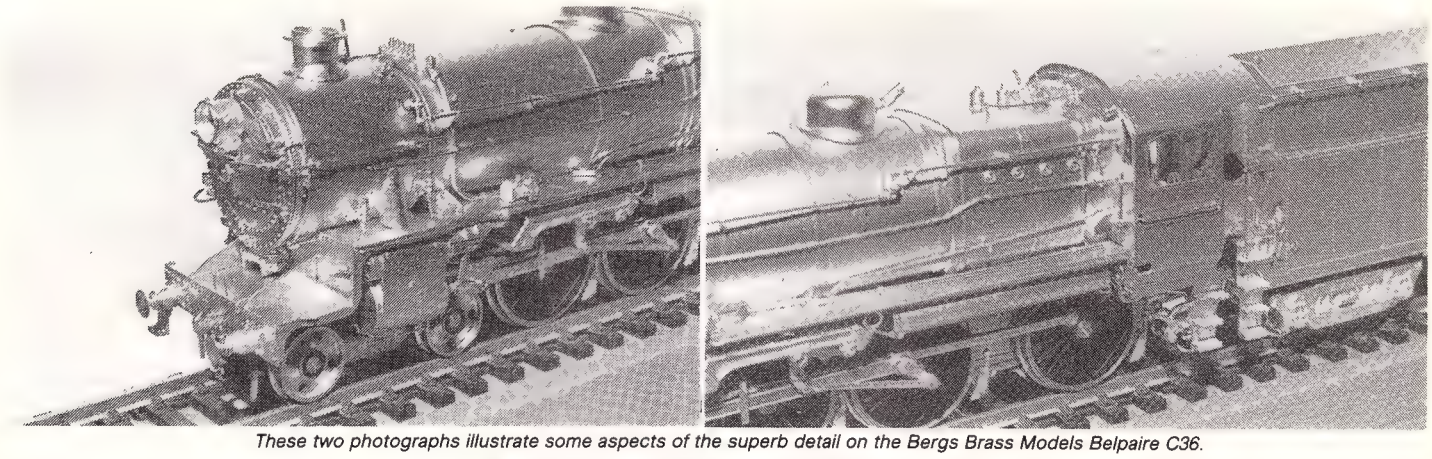
Fireman's side of Belpaire C36.



Front and rear of Belpaire C36.



Cab and tender footplate of Belpaire C36.



These two photographs illustrate some aspects of the superb detail on the Bergs Brass Models Belpaire C36.

brake gear. One problem with the outside of the cab is that the curve of the roof starts too soon, there not being sufficient flat area above the window.

The front coupler is identical to the round top version as is the tender. The same errors have been applied to the tender, viz the lack of tool box and the poor bogie castings.

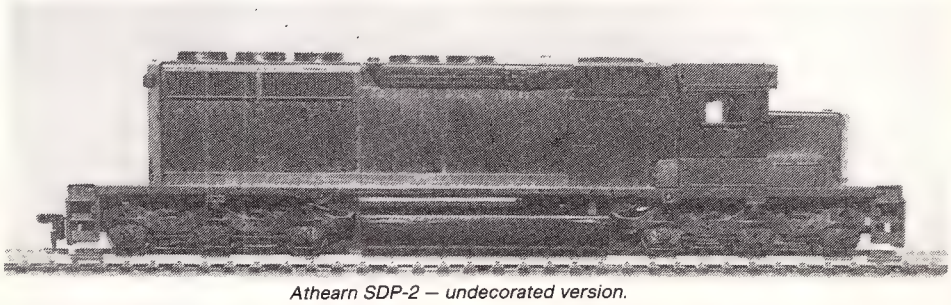
When compared to the Data Sheet plans the model scaled out accurately. Overall assembly on the model is excellent.

On the track the Belpaire version has the same problem as the round-top — incorrect back to back dimensions between the wheels. Exactly the same errors and again when corrected the model ran very smoothly and quietly.

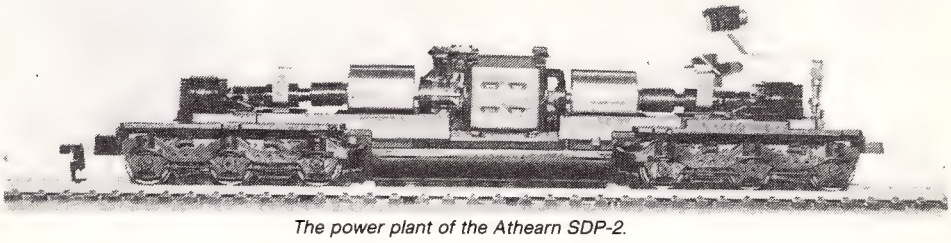
The response to the controller is very positive. Top speed was 118 mph (190 kph), low speed 1.14 mph (1.83 kph), the draw bar pull was 53 grams and the model could negotiate No.4 pointwork when the loco was connected to the second hole on the draw bar.

The same good and bad points apply to this model, and again it is an excellent model. Painting of the model should be aided by the photograph of a C36 in action and the decals.

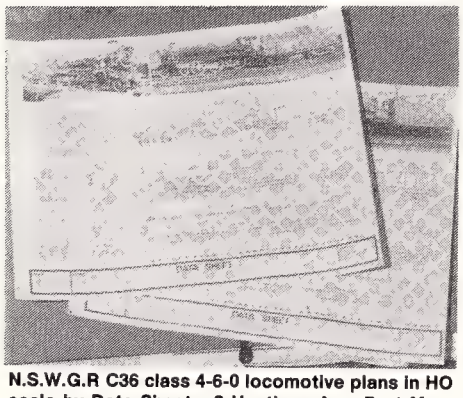
Bob Gallagher.



Athearn SDP-2 — undecorated version.



The power plant of the Athearn SDP-2.



N.S.W.G.R C36 class 4-6-0 locomotive plans in HO scale by Data Sheets, 2 Hastings Ave, Port Macquarie, 2444. Price: $2.00 a sheet.

These two plans are the latest from Data Sheets, who recently took a rest from scale plan production. The C36 sheet was released previously, but is now released in both the as delivered (round top) and rebuilt (Belpaire) styles. Each sheet is a separate identity.

Both sheets are to the usual size and each is illustrated with two photographs (one of each side) and some technical information. The essence of the sheets is the detailed information supplied by the drawings, and this is first class. The sheet includes a side elevation, a side section and far side detail elevation, elevations for loco and tender front and rear and a half plan and section.

The detail supplied on these drawings is immense, and would be invaluable when building or detailing a model. The only confusing aspect is the plan and section elevation. Surface detail on the sectioned plan view is completely obliterated, and as both sides are not identical, this causes a lack of essential information.

Despite this these plans are of great value to the modeller. Welcome back Data Sheets.

Bob Gallagher.

SD40-2 powered diesel in HO scale by Athearn. Available from Punchbowl Hobbies, 545 Chapel Rd., Bankstown. 2220. Price: $54.00

The SD40-2 is the latest release by Athearn, and the sample reviewed was an unpainted undecorated model. The SD40-2 is an EMD built diesel electric which is powered by six wheel bogies. The model is 226mm long, 34.5mm wide and stands 54mm high above rail height. The model is accompanied by a pack of parts which provides detail mouldings for bogie air cylinders, handrails, horns, number boards, etc.

The one piece body, a poly styrene moulding, is secured to the blackened die cast chassis via four pin clips. The moulding detail can only be described as superb, and is totally free of any defect of moulding flash. The loco is fitted with X2F couplers protruding through the pilots.

The six wheel trucks are powered by a five pole semi-enclosed motor. Attached to each end of the motor is a 17mm x 19mm brass flywheel driving each bogie via a plastic universal, from which a gear train powers each axle. The full width of the mechanism is 17.5mm, making the model useful for narrow hood units, especially the V.R. 'X' and 'C' classes. Like the previously mentioned locos this model oozes power.

There is little doubt that this power plant will be used for powering other models and here dimensions are important. The 12mm wheels have RP25 profile and are gauged to 14.5mm back to back. Bogie wheel base is 47.5mm, the centre axle being 1.5mm off centre, the short section being to the centre of the loco. Total wheelbase is 193mm long.

On the track the power of this model is proven, and yet the mechanism still negotiates No.4 pointwork with ease. The model has a top speed of 101 mph (162 kph), a slow speed of 5.43 mph (8.7 kph) and a drawbar pull of 70 grams. The model was jerky in low speed, a factor that will improve with tuning and running-in.

A very powerful model, designed for the modern American road, but no doubt useful to the Australian kitbasher.

Bob Gallagher.

Wheelbarrows, trolley jacks and mounted fuel tanks in HO scale by F & G Models, P.O. Box 149, Kilsyth, 3137. Price in Text.

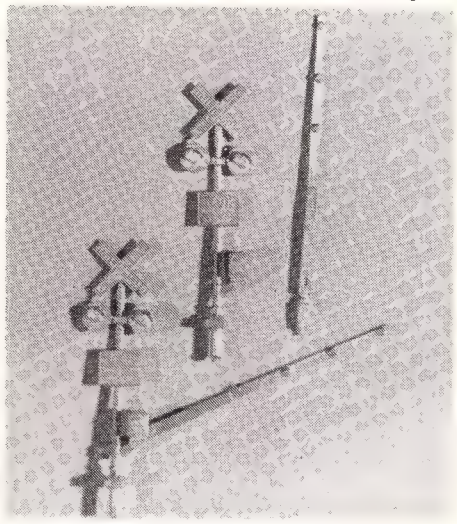
The following are further additions to the growing range of painted metal castings.

Wheelbarrows — $1.65: coded G23, the two barrows in the pack represent a grey builders barrow, with pneumatic tyre, filled with material. The casting includes handles, wheel, stand and the load is detailed, like coarse sand. The barrow stands 8.2mm high, is 18.5mm long and 6.3mm wide.

Trolley Jack — $1.55: coded G25 the two jacks are representative of those used in motor garages and are painted yellow with the wheels and pressure point relieved in black. The unit is 15.4mm long, the handle being an additional 11mm. Width is 5.4mm and height 3.7mm. Detail is fine, and the units look like trolley jacks.

Mounted Fuel Tanks — $1.65: coded G24 the two tanks, mounted on a steel base, are painted brown. The tanks are 7.3mm x 8.4mm long, and are mounted on a steel 'T' section 12mm wide frame. Detail is fine and includes the bung, which is relieved in black. No doubt these items will be fine detailing paraphernalia alongside a work shed.

Bob Gallagher.



Boom Gates in HO scale by F & G Models, P.O. Box 149, Kilsyth, 3137. Price: $3.05.

Boom gates are used to separate road traffic and rail traffic. To the motorist they are a headache, for they holdup traffic while a train passes. Without

80 class.

boom gates, many motorists would not be around. The gates are usually positioned on the left hand side of the road, only covering half the road.

This pack, coded T12, includes two gates, comprising the stand and the boom. Each stand includes a mounting pedestal, 2.2mm dia., and a concrete ground frame. On the pedestal is the usual 'Stop on Red Signal' sign, the 'Railroad Crossing' sign, two light frames and the motor housing for moving the boom. Detail on the metal casting is very good, although the castings are soft and may require straightening.

The pedestal would stand 50mm above the ground. The boom is 64mm long and this includes the counterweight and two cast-on lights. There is provision for the mounting of the boom onto the motor housing, a super glue being a suitable adhesive. With a little care and attention these items could become a fine stationary detail item on the layout.

Bob Gallagher.

NSWSRA 80 class diesel electric locomotive, in HO scale. Manufactured by Samhongsa of Korea for Casula Hobbies, Phoenix Plaza, Macquarie Street, Liverpool. 2170. Price: $325.00

In November,1978 the NSWSRA took delivery of the first of fifty 80 class diesel electric locomotives. Built by Commonwealth Engineering (NSW), the locomotives resulted from an initial order of 30, followed by a further order of 20. The last unit, 8050, was delivered in February,1983. All units are structurally the same, the only external difference being that the last 20 (8031-8050) are painted in the reverse colour scheme of Indian Red and Chrome Yellow. As at the time of writing this review (April), none had yet succumb to the new corporate image colour scheme. The locos are mainly used for western workings.

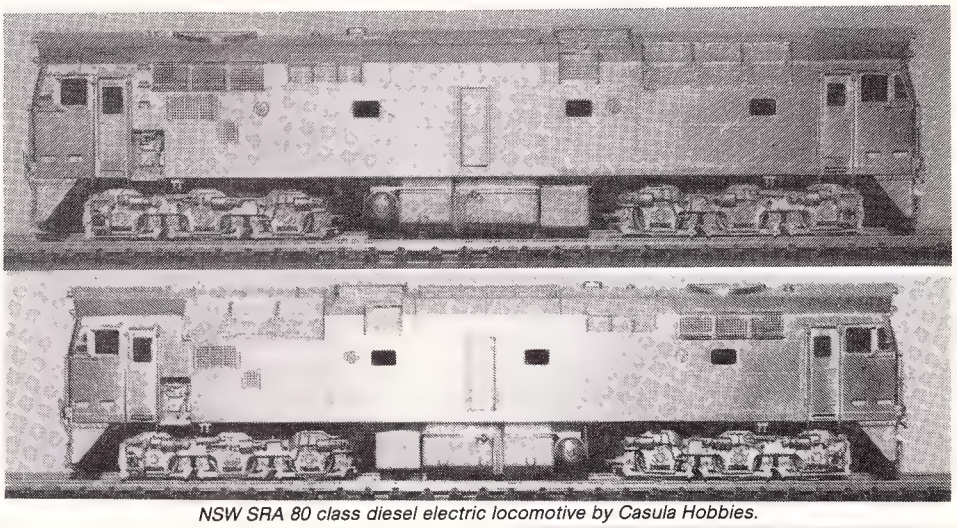
Construction of the model is consistent with the other NSW/SAR outline diesels, in that the body shell is etched brass bent and soldered to form the general body shape. Soldering throughout is clean. Lost wax castings and other etched parts are then added. The body shape has been well executed, and the familiar high roof line of the 80 class is well portrayed. The etched mesh which represents the fan and side grilles is also well defined. At the other extreme, however, there are two lost wax castings of louvred side grilles which are somewhat coarse and not up to the standard of other lost wax castings on the model.

The body also contains lifting lugs, exhaust stack, toilet vent, 5 chime horns, all grab handles and rails, sand filler hatches, and two of what must be the best detailed staff exchanger boxes yet produced (lost wax castings). A Comeng builder's plate is under each of the driver's cab windows, at chassis level.

The shape of the cabs cannot be disputed, and certainly look the part. The two pilots are lost wax castings and contain anti-climbers, M.U. connections, uncoupling levers, air pipes and that large jumper cable under the driver's front window. The pilots contain pockets which are drilled and tapped to take Kadee No.5 couplers. These fit in at the correct height. Overall dimensions of the model are within accepted tolerances, and are only out in most respects by 3'' or so.

Bogie sideframes are also lost wax castings to which have been added brake shoes, brake cylinders, pipes, the speed cable journal on the No.2 axle, plus all cab steps. The frames also contain yet again the Comeng identification plate.

The model's mechanism is once again the



NSW SRA 80 class diesel electric locomotive by Casula Hobbies.

Canon 'flat' can motor (minus flywheels) centrally mounted on the floor and driving through universals into vertical gearing towers into each of the three-axle bogies. All axles are driven. All wheels were found to be at correct back-to-back measurement, using the NMRA gauge. A word of caution though: take care if removing the keeper plates from the bogies as the gear train is made up of many small gears. The bogie 'blocks' are pre-blackened. The whole drive system is again nice and smooth, although both keeper plates on my model were a bit loose and needed the screws tightening. Actually, it is not a bad idea to check out all screws on any new model before running it.

A fuel tank/air cylinder arrangement, suitably weighted, is yet another part of the model. Disassembly of the model is by way of two small screws at one end of the fuel tank, and the rest is relatively straightforward.

A plastic bag of assorted spare screws (actually there are not many screws in this model), plus windscreen wipers, side mirrors and a length of chain for the brake cylinder to body bracket (the loco's hand brake), is enclosed in the model's attractive black and gold box.

This model has also met with a gimmick. Not only does the fan rotate when blown on, but all doors open. They each have a coiled spring arrangement to close them again. From this I can see two problems: firstly, on my model, two of the doors do not return snugly to the closed position (the springing mechanism appears to have been soldered on slightly crooked) and, secondly, painting of the model could be a problem in that there is an outer edge on all doors which, when closed, is hidden by the door frame. Somehow the doors will have to be painted in the OPEN position — or else glue them shut permanently. I personally feel that novelties such as this are best left to larger sized models on which they can be more reliably carried out.

The top speed of the model is very close to the rated 75 mph being 73 mph (117 kph), low speed is 1.03 mph (1.65 kph) while the draw pull is 65 grams. The model can negotiate No.4 pointwork.

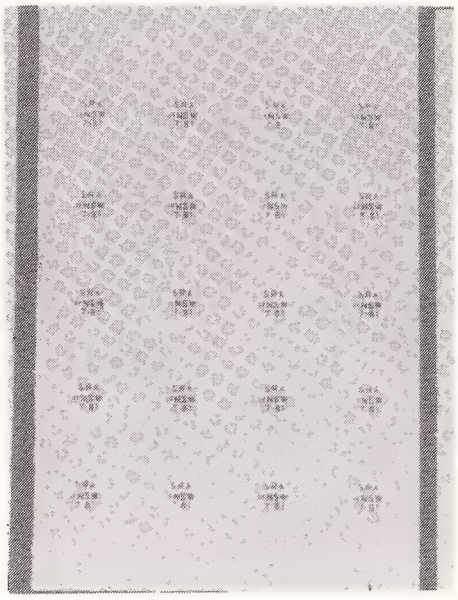
The model has the same pulling capabilities as the earlier 442, 45 and 600 classes from Samhongsa. It pulled in excess of 13 stock standard Lima passenger cars (all up weight 1590 grams) up the same 1 in 40 grade with ease. It is also an ideal running mate for those locos.

The fact that both cabs are so spacious, yet regrettably empty, makes one wonder if some enterprising local cottage industry might cast the relevant interior fittings.

This model suffers the same bogie problem as the 45/600 class models in that the pivot is over the third (innermost) axle. This tends to exaggerate the bogie swing and body overhang on curves. It also prevents the inclusion on the model of the hand brake bracket and chain which connects to the leading brake cylinder on each bogie (actually the model shows the solder mark on the floor where these were to be). However the pivot system on the 45, once it has been painted, tends to be less noticeable and I can only assume the same will apply with the 80 class.

In summarising, the only thing I do not like is the gimmick doors. All other things aside, the 80 class is a well executed model in keeping with the current spate of diesel models, and one that will fit well into the stable of motive power units of the present day modeller.

Allan Brown.



NSW PTC or SRA pre-printed tarpaulins in HO scale, by Broad Gauge Bodies, PO Box 6, Marden, 5070. Price: $6.65.

Like other railway systems the NSW rail system uses tarpaulins to cover loads on open or flat wagons. Generally these tarps were 14'6'' x 22' and are used in a variety of applications, singles, doubles, etc. To indicate ownership the tarps are stenciled, generally in black.

The package of 12 preprinted tarps are supplied in a poly pack, topped with card. A few application hints are included inside the pack. The tarps are printed, mid grey on 0.1mm thick, 65mm x 85mm aluminium sheet. The sheet is lettered with 'PTC of NSW 1.79' on half the sheets and 'SRA of NSW 11.81' on the remainder. The aluminium sheet is stout and hardy, and the painted surface is not marred by unusual bending.

There is little doubt that these tarps will find a use on NSW PTC or SRA wagons, especially covering loads of wool in 'S' wagons. The gloss finish can be treated with weathering and a clear matt finish for best effect.

Bob Gallagher.

Decals for NSW freight numbers, grade control & load control symbols in HO scale by Broad Gauge Bodies, PO Box 6, Marden, 5070. Price: $1.15.

These decals are available in two colours, black (BGB No.48) and white (BGB No.47). The decals are supplied on a single 63mm x 150mm sheet, packaged in a poly bag with a card top upon which the decal application details are printed.

These decals are designed for use with pre 1980 goods (or freight) wagons. During 1980 the railway system appeared to change their number application style from the hand applied number to a stencil style. The latter method changed the style of the number and standardised the overall size of the number. Before 1980 signwriters used a standard N.S.W.G.R. lettering style but the size of the numbers varied from wagon to wagon. the variation was only a few inches, but it did differ.

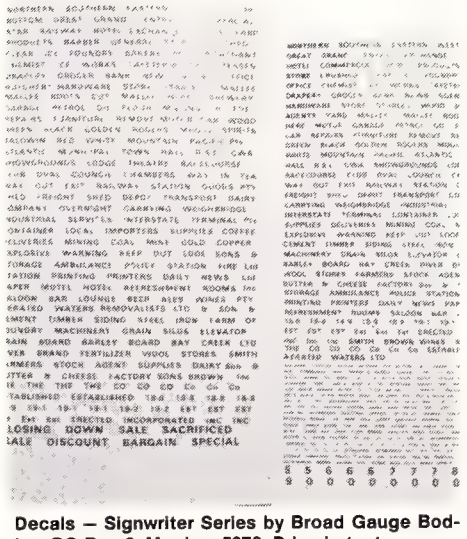
The sheet contains 16 lines of numbers from 0 to 9. All numbers are supplied as single units and not in

any predesigned sets. There are however 24 sets of 1 to 0, on the sheet. The numbers are 1.65mm high, 5½" in HO scale and represent the individual numeral style adopted by the N.S.W.G.R.

The sheet also contains grade control and load compensating symbols. There are six 2.75mm squares, six 1.9mm circles and 24 combined square/circle symbols the latter used to indicate that the vehicle upon which the symbol is attached is load compensated and had grade control.

The availability of the decals in black and white offers a complete application of the decals, for the N.S.W.G.R. used either plain black wagons, (and in some instances black reporting boards), or white reporting boards, upon which the numbers/symbols were applied. The decals slide off the backing paper readily and adhere well to the surface of models, a gloss finish on the model being best. The only problem encounted was in the application. Each number/symbol has to be cut from the sheet and singularly applied. It is a tedious operation, but that is not the fault of the product, only the cost of a finely detailed model. These decals provide the means whereby a model can be finely detailed with the correct style and size numbers.

Bob Gallagher



Decals — Signwriter Series by Broad Gauge Bodies, PO Box 6, Marden, 5070. Price in text.

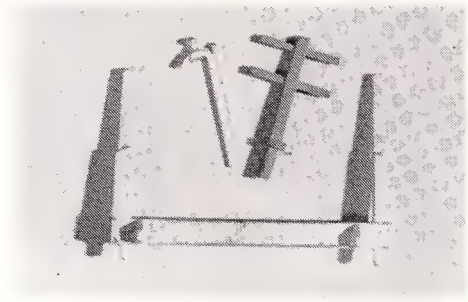
These decals have been designed as an aid to the modeller whose objective is to detail signs, structures, etc. They are supplied on sheets 259mm x 143mm, and there are two sheets to a pack. The sheets are chock-full of words seen around Australia. A brief resume of contents include:- R.S.L., COAL, BEER, BAR, WINES, GOODS, TEA, EXIT, RAILWAY, HOTEL, CWA, GARAGE, etc. The names are 2.5mm high, and some are repeated 1.0mm high.

The sheets are supplied in three colours, red, white and black. These packs retail at $3.99.

Also in the series is an accompanying pack which contains a sheet of single letters which are matched in colour and style to the main sheets. These retail at $2.80.

There are fine products that have many uses. Time will tell if the Australian modeller can take the full advantage of them.

Bob Gallagher.



Water taps, Rail stacker and log holder in HO scale by F & G Models, PO Box 149, Kilsyth, 3137. Price in text.

F & G have released a few more metal castings in the form of detailing components. All castings were free of flash and the unpainted components required very little cleaning.

Water Taps — $1.90: coded D4, there are 4 taps in a pack. Known in Australia as a stand pipe, these minute castings, supplied unpainted, represent a round handled water cock. The stand pipe is firmly attached to a support. To fit to layout simply drill a hole to fit 1mm pipe. The complete assembly is 12.5mm high but scales out oversize for the standard ¾" (20mm) or 1" (25mm) pipe, the 1mm dia. pipe representing 3½" pipe, but the effect is real.

Rail Stacker — $1.98: coded T13, there are four to a pack and all are painted rust brown. Rail stackers are used by Way & Works gangs upon which to stack rail, which is awaiting use. Generally they are found near gang sheds, at the extremity of the yard. The stacker comprises of a thick post onto which is attached a number of arms. Upon these arms the rail is stacked. Provision is made for mounting via a 1.6mm dia. shaft. The body of the stacker is 1.7mm square, and it mounts 15mm high above ground level.

Log Holders — $2.30: coded T15, there are four to a pack, all unpainted. Log holders are generally used on flat wagons to restrain logs from moving. They are also used on road vehicles and in timber mills. These holders have the correct appearance of holders used in Australia and the USA. They take the form of a body mounted bolster with two tapered uprights attached to the extremity of the ends. The bolster is 3mm square and 36mm wide. Four tapered supports are attached to the sides. The uprights are 23mm high and take the form of square tubing.

Bob Gallagher.

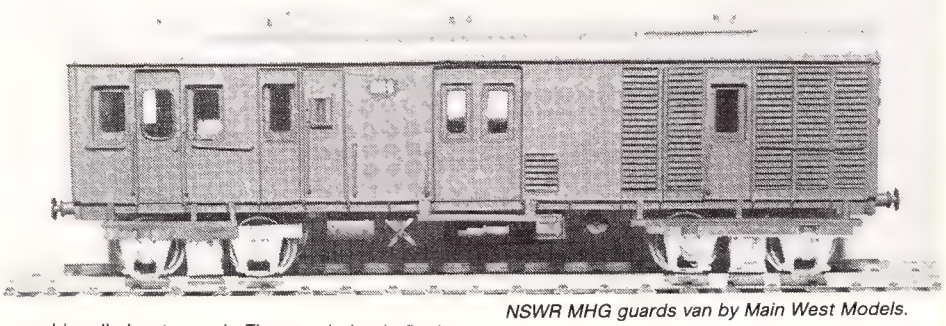
Train order set in HO scale by F & G Models, PO Box 146, Kilsyth, 3137. Price: $2.94.

Train order is a style of safe working that was used in the USA and in some Australian states. This set appears to represent that used in the USA. It comprises a pole, a light, two brackets, a set of steps and a human. All are quality metal castings except the tube, which is alluminium. None are painted. The tube is 1.5mm dia. and 63mm long. The light is designed to fit into the top of the tube while the brackets for holding the train orders are designed to attach to the side of the pole. The steps represent stone and the flag waving human is dressed in railroad attire, and provided with two 0.9mm mounting spigots. All are very clean well detailed castings.

Bob Gallagher.

MHG class brakevan kit in HO scale by Main West Models. Available from Casula Hobbies, Phoenix Plaza, Macquarie St., Liverpool. 2170. Price: $12.95.

The 200 vans in the MHG class were built by Metropolitan Camel in Birmingham (U.K.), assembled in Australia by Clyde Engineering and introduced to service in the 1951 to 1953 period. They were allocated various numbers.



NSWR MHG guards van by Main West Models.

As supplied they had a perishables compartment, a general goods compartment and a guards compartment. The exterior of the perishables compartment was louvred, while the end of the goods section was fitted with a dreadnought strengthening section. The class has been subjected to a few livery variations including the gunmetal lacquer (grey) and the latter livery of red with yellow lining.

As supplied, the grey epoxy kit was contained in a poly bag, with a card top. The kit comprised 2 sides (with glass windows cast within), 2 ends, one-piece moulded roof (complete with vent and gutter detail), moulded one-piece floor with cast on underfloor detail, white metal bogie side frames for 2AT style bogies complete with plastic bolsters, along with detail items such as shunters steps, wire for handrails, and a typed instruction sheet which includes a diagram on the reverse side.

Noted omissions were wheels, bearings, bogie attachment screws, buffers and decals. Most items supplied were clear of flash, and the castings were crisp in detail.

Construction commenced, following the step by step instructions. The instruction sheet gives what can only be described as minimal directions for assembly of the basic vehicle.

As advised, the body was assembled, using a super-glue adhesive, and then a fillet of 5 minute epoxy, was applied to the hidden sides of the joints. The roof casting posed a problem. It was approximately 1mm sort of the necessary length, and, when resting on the tops of the sides, assumed a lower profile than the ends which it had to match. A fillet of epoxy was placed along the top edge of each side and the roof added while the epoxy was curing. This built up the height of the roof. Filling gaps, sanding and shaping then followed. Care was needed to prevent damage to rain gutters and ventilators.

The bogies were assembled using 10.5mm Sentinel disc wheels. They were then attached to the well detailed floor casting using 8BA screws in lieu of the self tappers recommended.

The floor glued snugly in the correct location, and fitting of the detail items, steps, and handrails completed the kit as supplied.

The model, as supplied and assembled, unfortunately did not roll very freely. The bogies have been made 'fully loaded' and the axle holes were cast very high in the journal. Consequently when fitted with the correct size wheels, the lower edge of the bogie scrapped along the rail head. (The manufacturer is now aware of this problem and has made corrections to the castings. — Editor).

In summary there are some good and bad points with this kit.

The minus features included:-

1. Pre-drilled holes for hand rails were too large.
2. Poorly detailed instruction sheet with reference to painting of toilet window, or use of partitions for additional strength.
3. Lack of associated prototype information on painting, lettering, finishing, use of buffers, bogie style and number series in the class.

The plus features included:-

1. Well detailed parts.
2. Ease of assembly.
3. Cast-in windows.
4. Good looking kit.
5. Good value for money and a very useful model on any NSW layout.

Notwithstanding the above comments, the kit scales well for width, length and height and the cast-on items on both roof and floor enhance a very good looking vehicle.

Ray Love.

Sir,

The following comments may be subjected to censorship by the Editorial Staff of this magazine. This is written to let readers know, as to what takes place, when the abovementioned staff visits one's layout.

Fortunately they only come by invitation, followed by a definite time schedule previously arranged by phone. In this instance 1.00pm Saturday afternoon. Having arrived at 12.56pm they waited until the one o'clock time signal, then proceeded to invade the joint with all their equipment.

First, after a brief introduction, they took over and set up their camera gear, much to the delight of our cat, who proceeded to knock about the tripod legs of their equipment, thus making their job most difficult. This cheered me up considerably as they think they can take better photos than my crummy efforts.

No names shall be mentioned in case of reprisals. However I was immensely pleased that the Managing Editor did not take photos of my models standing on a block of wood with rails attached. (The models, not the M.E.) The official photographer then started placing sheets of cardboard, (which incidently I had to supply) round the layout, so that he could practice his art of photography. One redeeming feature was that they requested a small soft paint brush to enable them to remove cobwebs and dust from the models before taking photographs. The models now look much cleaner than before their visit.

The next thing that happened is that they started directing you to shunt this wagon here and that loco there, so that they can take their photographs. This was most embarrassing; here you are at the controls of your own layout and this mob is telling you what to do.

The Editor, upon noticing two black holes in the rear wall of the garage, with tracks disappearing, then proceeded to investigate the track layout. He was followed by other members of the troupe, where they discovered the workshop. Here I felt like I was in the witness box, with questions being fired at me from everyone including the bloke who wrecked the doors of a Lima ELX with a milling cutter, just because he did not like where they put the lashing bars.

Later on a fellow they call the Illustrator, once he mastered the control panel, tried to set fire to it, just because one of the point motor switches developed a fault. Then someone tries to offer roll your own cigarettes to the cat, while others stood on his tail. Then they met my wife, who I introduced as the colour consultant to Bentmore. So as to obtain a cup of coffee and biscuits, they kept sweet with her by telling her that the colour of the layout is terrific, but the models are not so good.

Even after this massive invasion, consisting of ten fellows both from N.S.W. and S.A., I am happy to report that Bentmore is still in one piece and the fruits of their valiant efforts are supposed to be published in future issues. If this does eventuate I only hope that they spell the name of the layout correctly.

Finally after this sad tale of events, I must admit I had a memorable and most enjoyable afternoon and I hope the visitors did likewise. They shall always be welcome at Bentmore on their visits to Melbourne.

Harry Bender,
Bentleigh. 3204.

There are always two sides to a story, but unfortunately the libel laws of Australia restrict us to detail ours. It was however a pleasure to visit Bentwell and have the privilege of cleaning the models. Unfortunately the photographs of Bentless did not turn out as expected (all fuzzy, thanks to the cat), so we will have to make a return visit. So be warned, that when next in Melbourne, we will visit Wellbent, and trust that you will have taken suitable fire insurance, paid the cleaner, killed the spiders, stabled the cat and cooled the tinnies.
Thank you Harry, we enjoyed the visit to Bentmore and the hospitality extended. We also trust that readers will enjoy your articles and our photographs as much as we enjoyed an afternoon of meeting new friends, seeing good models and generally partaking the camaraderie that is continually found within the model railway hobby. — Editor.

Sir,

Your correspondent, R.Kearey of Wynnum (AMRM April 1983), has noted Q.R. locos having numbers 2406 and 2451. He observes they 'look rather like a 1550 class'. These locos are, in fact, members of that class.

The 1550 class is a less powerful, but similar loco, to the 2100 class. The class was introduced in 1972, and includes numbers 1550 through 1576 and 2400 through 2482.

I believe the locos were built by Clyde Engineering, and have a G.M. engine of 1119kw power. Overall weight is around 92 tonne, and the length about 18m.

R.J.Black,
Wynnum. 4178.

Sir,

As this is my first letter to you, I wish to commend you, and your staff, for producing a fine magazine. Please publish my letter as I have a few ideas that I would like thrown into the cooking pot.

David Hardman's letter of issue 118 has stirred a few ideas which have been spinning in my head for some time. David suggested several modellers getting together when ordering custom built locomotives from 'Micromodelmakers' of the U.K. He stated that by doing this, the cost of a particular model would reduce considerably. What a wonderful idea.

If David's plan were to eventuate, he would in fact be setting up a type of small, informal co-operative. I believe the idea of a 'model railway co-operative' worth investigating.

For example, 150 serious HOn3½ modellers of Queensland Railways prototype could band together to produce a brass locomotive of their choice. Each member of the Co-op would contribute sufficient money to research, plan and construct the engine. A Korean, Japanese or other manufacturer would then make the model, say 150 units. (Some modellers may want more than one unit.) The funds which remain in the Co-op's bank account, after production of the loco, would then be refunded to the members, or used in the next venture.

Producing a model this way would not only reduce the cost, by eliminating the hobby-shop owner come brass importer, but would ensure a more accurate model, built to the standards and specifications of the members of the Co-op.

I can hear the grunts of disapproval now coming from potential entrepreneurs. I suggest that this sort of project would only apply to modellers of an unusual prototype, or a prototype which is not yet represented in model form on the market (QR for example).

To many readers this venture may sound farfetched or economically non-viable. If one or two people can successfully import a brass model, then surely a group of, say, 100-150 can do much better.

I myself am a modeller of the NSW and Qld systems. Already I have four brass NSW engines and an average assortment of other locos and rollingstock. My projected layout will be representing an area somewhere in the South Brisbane region. Naturally I would be interested in an HOn3½ QR engine. However, more people might be interested in an S scale loco — I would have to compromise.

I would be very interested to hear the views and opinions of the magazine staff and/or any readers. My age is 19 years; my view of the model railway scene may be a bit radical for most — I hope not.

Brendan Jansen,
Dalby. 4405.

The co-op style of obtaining models has been used in Australia before. In the late 60s/early 70s a number of kits were prepared under Aussie Kits where all participants shared in the costs and the benefits. Kits were produced for NSWR C36, C30, C30T, C35, D50, D53, Turrett Tender, Walsh Island Tender, VR D³ and QR BB18¼, the latter in HOn3½ scale. Unfortunately, due to the loss of interest by the manufacturer, this venture ceased. — Editor.

Sir,

This may seem like another rambling letter complaining about this and that; however there are a few items I wish to discuss, mainly about availability of certain items.

The first thing I wish to discuss concerns brass locos and rollingstock. No, I'm not complaining about their quality or what they cost. What concerns me is the present 'flood' of brass models onto the market. With the large number of 'limited runs' it's a case of 'first in, best dressed' and if anyone is unable to purchase a particular model as it comes onto the market, well 'too bad, you've missed out'! A modeller may then have to wait years for a re-run or maybe a kit. I would like to think that this 'flood' of brass rollingstock is easing up. I hope so. I recently spoke to a retailer who told me that the 'flood' of brass rollingstock had a considerable effect on the sales of plastic injection moulded kits! There have been other modellers like myself who have missed out because they were paying for other brass models.

To cater for those who missed out on certain brass models or those who model in a less popular scale e.g. TT, S or 1, I wonder if we may be able to have a scratchbuilding service. I understand such services operate successfully in Britain; could such a service operate successfully in Australia; does such a service already exist?

The second item I wish to discuss concerns kits made from cast epoxy resin. The kits on the market at present may consist of parts which are free of bubbles, flash, etc. and their quality of workmanship as far as detail is concerned may be second to none, but they still tend to be brittle. If a model is dropped, as some of mine have been, it usually ends up in pieces. So, for this reason, I wonder if some models could be produced from wood. Some years ago I purchased an SAR reefer kit made by 'B.J. Aussie Kits'. The parts were made from wood, accurately cut to size. The kit was relatively cheap but it was one of the best kits I have ever had the pleasure of putting together.

My final comment concerns Gauge 1, i.e. ten millimeter scale. I became interested in this scale some years ago because of its possibilities with live steam. It may not be a popular scale. However I have become particularly frustrated at the lack of wheels, bogies, W irons, buffers and couplers. Some of these basic items may be available, but from what I can gather they are very difficult to obtain, very expensive, or both. At present there are also some locos and rollingstock made by Marklin but the range is limited to some German prototypes. Once again they are difficult to obtain and expensive. No, I'm not asking anyone to produce models in this scale. All I'm asking is for someone to produce some of those basic bits and pieces which seem to be taken for granted in the more popular scales.

As you can see I've commented about a number of things mainly availability of items and services. I've also made a few suggestions which may or may not be practicable. However, I would be interested in hearing what other modellers have to say.

Peter Sansom,
Macquarie Hills. 2285.

Sir,

I have recently become interested in railway modelling and was wondering if you could provide me with some helpful hints. I have some of the Lima Australian models and one or two Hornby models. I would like to convert these to the Kadee 5 type couplings. Could you or one of your staff detail the method for me please. You might like to publish this as there may be others in the same situation as I am.

Also could you identify the Lima container wagons. They are coded FCF but I'm fairly sure the SRA doesn't have wagons coded as such. Your help will be appreciated.

Andrew Short,
Carlingford. 2118.

P.S. I have only just discovered your magazine. It is excellent to say the least.

There was an article by Bob Gallagher in the April 1982 issue describing the fitting of Kadee couplings to a Lima locomotive. It is beleived that the FCF code was based on a S.A.R. wagon, but it bears very little resemblence to any Australian container wagon. — Editor.

Sir,

I have received the latest issue of AMRM and I read the review of the Rails North 'MB' wagon.

You mentioned a body filler was used to fit the roof into place and I was wondering what was the name of the filler you used on the review sample. The quickstop putty mentioned in the instructions is unavailable in my area. I do not wish to ruin the model as it has made up into a nice model so far. Could you also tell me where the filler is available.

Paul Bartle,
Hurstville. 2220.

Body filler putty is available in almost every hardware shop, usually in a handyman's rack. They can be either epoxy or polyester based. Panel Metal,

Plastibond and Jet Flex are just a few of the body fillers available. — Editor.

Sir,

In response to Phil Curnow's request, October 1982, for a solution, a modification of the 'skrawker' is offered to cut a polystyrene sheet with tapered sides.

First, the 'skrawker' is so called because of the noise it makes when doing its job. The normal (?) cutter has about a 15 degree point which is dragged across a sheet of rigid plastic once or twice against a (hard) straight edge. The material can then be snapped along this line by bending along the groove.

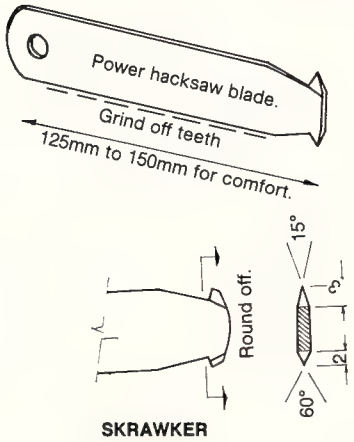
Attached is a sketch of a double edged tool to perform the normal duty and also Phil Curnow's special requirement.

By clamping 40 thou. or 1 mm. p.s. sheet between a cutting board and a steel straight edge, and then drawing the skrawker's 60 degree edge across the sheet several (or many) times until cut through, the first sloping edge of the mansard strip is made.

Unclamp the straight edge and re-adjust the sheet to cut the second side and the first side of the second strip and re-clamp. Some experimentation will be necessary to determine how much width exposure for the cut strip width.

The system is quick, neat, and accurate, and has been used successfully to make mansard cover strips 1 mm. wide in 10 thou. sheet.

Max Chaseling,
Kenmore. 4069.



SKRAWKER

Sir,

In my letter in Mailbag of last issue concerning FE 712, the photograph in the book 'Passenger Cars of the NSWR' shows the vehicle as at June 1967 with plywood panelling and not matchboarding as previously stated. I must apologise for any confusion.

Bradley Hinton.
Wahroonga. 2076.

Sir,

Congratulations to Norm Read. B.E.M.

In the dim past of the 1950s, along with Bob Gorrel, Norm and I were the three elected to start the Australian Model Railway Association — N.S.W. Branch.

Frequently during the infancy of the branch, I was guided by the wisdom and humour of Norm, whilst we struggled with the problems of gaining members and planning the activities of future meetings.

A well deserved tribute to a gentleman who is an ambassador for model railways.

Ted Gray.
North Rocks. 2151.

Sir,

Please add to your already growing list of Congratulatory Messages. My sincere thanks to The Managing Editor and all the staff for a most useful publication and a hope that the next 21 years will be as successful as the past.

I have been subscribing now for all but the first three years and have consistantly drawn on the AMRM material in my modelling.

Again thanks to all.

Les McDonald.
Goulburn. 2580.

Sir,

I am not a railway modeller, my interest being in the full-sized prototype, but I may be able to assist in the vexed question of N.S.W.R. passenger loco liveries as I have seen many inaccuracies in the way some modellers paint their locos, which is a shame as they go to such marvellous lengths in the matter of detailing.

I was a schoolboy in the late 30s and early 40s, a time when many of your present-day modellers were babes-in-arms or not even born, and I was even then a dedicated 'Loco spotter' so the following may be of help and interest.

Firstly regarding the C38 class: not most but ALL thirty of the class attained green livery between 1946 and the early 50s. The five 'bullet nose' 3801-05 were painted all-over green relieved by simple 'fore-to-aft' cream straw lining; the non-streamlined 3806-3830 were painted green with the then standard (red outer and cream inner) straw lining, including the side valances or 'skirts'. The boiler bands were also lined cream/red/cream and this extended to the smokebox sides. The only black was on the front of the smokebox, so it is quite incorrect to paint a model non-streamlined C38 with an all black smokebox and plain cream lining, as I have seen done many times.

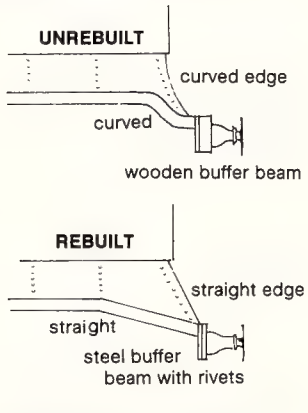
By the mid 50s, all C38s had been repainted black except 3813.

Now to the C32, C35 and C36 classes. It was the policy of the N.S.W.R., prior to the introduction of the C38s in 1943, to bestow green livery on all C32 and C35 rebuilds. The C35s were also fully lined out in red/cream, including the (then) newly fitted side valances, the boiler bands and the green-painted headlight. The smokeboxes were black front and sides. The N.S.W.R. crest (intertwined gold scroll-type initials with red centres) was located on the cab sides immediately below the brass numerals.

After early 1942 the C35s outshopped in rebuilt form were plain black. These were 3511, 3515, 3531, 3532 and 3533, so if you want to run a green C35, do not use any of those five numbers. The remaining thirty engines of the class had all been painted black by 1946.

The C32 rebuilds up to 1942 were also outshopped in green livery, a total of 31 engines. All subsequent rebuilds came out in plain black. The green engines were 3207, 3212, 3214, 3218, 3221, 3227, 3229, 3233, 3236, 3237, 3240, 3242, 3243, 3245, 3246, 3251, 3252, 3262, 3268, 3277, 3281, 3283, 3289, 3290, 3294, 3295, 3306, 3324, 3352, 3374 and 3378. They were also fully lined out in red/cream straw lining, smokeboxes plain black, the N.S.W.R. crest was carried on the 'box' above the front driving wheel splasher on each side, and the side framing was red with cream line along the bottom edge, this arrangement also on the bottom framing of the tender.

The brass Berg's model of the C32 depicts the unrebuilt form with unmodified front end, so it is incorrect to paint one of these models in green unless you have refashioned the front end as shown in the accompanying diagrams.



C32 Class front end details.

There was a total of 29 locos of the C36 class in green livery at this time. All were in original form (round topped firebox, two windows on each side of the cab in British LMS fashion), etc. They were fully lined out in red/cream straw lining, all black smokebox, green headlamp with cream lining and red side frames with cream line along bottom edge as on the C32s. The N.S.W.R. crest was on the top-centre of the tender sides.

These engines were 3603, 3608, 3609, 3611, 3613, 3616, 3619, 3628, 3629, 3633, 3635, 3637, 3638, 3640, 3642, 3643, 3644, 3649, 3652, 3653, 3660, 3661, 3666, 3667, 3669, 3671, 3672, 3673 and 3674.

It is incorrect to paint a model C36 green if it is in rebuilt form (Belpaire firebox, enlarged cab with single window etc.), as by 1946 all C36s had been repainted black, well before rebuilds began.

After the war, the N.S.W.R. policy was to give the green livery to the then new C38 class only, so none of the other classes ever appeared in green again.

Photographs of these ninety of the older class engines in green are very rare, because it was wartime and there was difficulty in obtaining film. There was also an official ban on railway photography and colour film was out of production.

Many modellers paint their passenger locos black with red lining. This is not correct, because all black engines were unlined except the C30 tank engines (red lining with reverse-rounded corners) and, later, the C38s, in their post-1950 black repaints. In their last years of service, some C32s and C36s had C30 style red lining and a few had the earlier red/cream plain cornered lining (3281 being one case), but these were all 'one-off' jobs.

There were some slight variations in the C36 class: Nos. 3671 to 3675 had spoked wheels on their leading bogies, 3672 carried for a time British-type smoke deflectors on each side of the smokebox (not replaced after the Brooklyn level crossing smash) and 3610, 3615 and 3655 had their cabside numerals on a raised plate similar to the electric 46 class. These were changed to the standard individual brass numerals when these engines were rebuilt.

John Harding,
French's Forest. 2086.

The Managing Editor,

Sir,

I would like to add my congratulations on the magazine attaining its 20th birthday.

There must have been times, when the future seemed clouded, but the dedicated volunteers under your guidance over the last nine years or so, are now producing a magazine, you can be justly proud of. Indeed I am curious as whether there is another magazine of similar quality, that is produced by volunteer staff in any other field.

It would be more than coincidence, that during this time we are witnessing a tremendous interest in Australian prototype modelling and an almost undreamed range of locos and rolling stock with ever increasing quality of manufacture.

Indeed there must have been comments, that it is too much too quickly, that may be so if viewed against the percentage of modellers in Australia to those in the USA or the UK or Europe, look at the vast range they have to choose from and yet one can read letters in overseas magazines, "why does not someone make so-and-so".

At least one mow has the opportunity to be selective and to some extent being able to model a period, does an 80 class D.E. look strange on the same tracks as a Z12 or Z24 steamer? But maybe a lot of modellers are like me and just like model railways for what they represent in pleasure and friendship received over many years.

But there is a thought that has been in my mind, you have built the magazine up to its present high standard, that when the time comes to hand over the 'reins', will there be someone as enthusiastic and dedicated as you to take over, or will the statement "entirely produced by voluntary labour" have to go to get the desired results.

Thank you for the congratulations on the B.E.M., a whole page, but it was the first time for our hobby. I wonder what the next 20 years will have to tell.

Norm Read. B.E.M.
Strathfield. 2135.

MAILBAG . . . Continued on page 59.

CORRECTION

The letter from Paul Rogers printed on page 34 of the April 1983 issue inadvertently omitted a line of text in the second paragraph. We apologise to readers who may have been misled by this error. The paragraph should read as follows:

"It may well be that the vehicle was reconstructed in this manner for the tests involving new types of louvred and semi-louvred vans. Built as LLV 29470 and commissioned during November 1958, it became available for tinplate carriage as TLV 29470 in July 1960. Then, and this is the interesting thing, it became GLX 29470 in August 1968 — the only TLV/TLX type van, as far as I can ascertain, to undergo this coding change. Was it damaged, and the opportunity taken to rebuild it as some form of test vehicle? Certainly, There seems to be some reason for it not being repaired and sent back into traffic as a TLV/TLX van."

AMRM NEWS

May we at AMRM, express our thanks for the many messages of congratulations we received with last issue and the 20th birthday of AMRM. To achieve this result there is no doubt that we have had to work hard, and often for little reward, for no matter how hard we try, we do not seem to able to please all. For the present we have a few plans for AMRM in the way of special articles, and these we will strive dilligently to bring to fruition.

One question often asked, "How long can you keep it up?" is one we just cannot answer.

AMRM takes a lot of our time, and, with most of us holding responsible positions in our regular employment, time is a commodity we continually run out of. The time will come when we must either step aside and make way for a new crew, or close up shop if there is no-one prepared to take on the task.

Now this does not mean that we are contemplating retirement at this present moment, but it does mean that we are aware of the need for modellers to be trained for running AMRM. We are concerned that this new blood does not appear to be coming forth, and that is a worrying factor.

For the Australian scene to continue there is a need for a healthy magazine. Most will agree that at present AMRM is healthy. So for the hobby to remain healthy there is a need for a plan to keep this ship afloat, and this must come from current modellers.

Do not wait until the present crew are forced to step down, indicate your interest in the magazine to the Editor now. Do not be put off by the professional appearance of the magazine. Only one of our crew comes from the printing or publishing profession, the rest of us have learnt the various tasks by experience. We have also found that new blood introduces new ideas, so do not be frightened if you feel you have little to offer. It is hard work, and it requires a lot of time. It is still the model railway hobby, you learn a lot, meet a lot of different people and it is also a lot of fun. Harry Bender's letter in Mailbag is one example of a fun afternoon, involving AMRM. We will be delighted to hear from you.

Vale David Casey.

It is with deep regret that we report the death of David Casey, the son of AMRM Back Issues manager, John Casey. David was one of those unsung individuals who helped with various duties without any acknowledgement. On many occasions David manned the SCMRA/AMRM stands at exhibitions, while others were at work, and David took care of urgent Back Issue problems when his father was on holidays. David's interest in model railways may not have been as strong as his father's, but he was always willing to help out. We all join with John and Betty in mourning David's untimely death.

Fellowship.

Over the past weeks a few of us at AMRM have had the privilege of visiting a number of layouts to gather material for future articles and to entertain overseas visitors.

The layouts visited, in Sydney and Melbourne, not only provided us with the material for future issues, but also showed us their style of modelling. It was all good fun, with more than a strip or two being torn off each other, as the various viewpoints on modelling were debated. All thoroughly enjoyed the encounter.

This camaraderie, is but one facet of the hobby that many enjoy. The secret of course is not to take the debating too seriously, and (on the quiet) to accept that others are permitted a viewpoint, even if you consider them wrong.

The opportunity of entertaining overseas visitors turned out to be very enjoyable and instructive. Not only were we able to show them some Australian layouts but also to discuss the methods by which they overcome problems in the hobby.

We sincerely thank those who entertained us, and those who helped entertain our New Zealand visitors. We trust that AMRM readers will enjoy the articles that will culminate from the visits.

Poverty Point and Blood Creek.

With this issue we print what could be the start of a number of articles on a large layout. We do not see it as another V & O, or a Sunset Valley, but it is a layout that is large in size and runs very well. There are many model railway practises in use on the P.P.& B.C. that we all can learn from. Currently the scenery is being applied to the framework and the varying methods are to be detailed in AMRM.

New Mechanism.

The release of the Athearn SDP-2 offers Australian modellers a fine mechanism, upon which to base scratchbuilt or kitbashed locomotives upon. The slimline motor, accompanied by two flywheels, still deliver the necessary power for a big loco, as well as being small enough to fit inside Australian hood design locomotives, especially the VR 'C' and 'X' classes. Maybe a reader or two will share with AMRM readers their experiences of using this mechanism as a power plant.

Exhibitions.

Interest in Australian prototype modelling continues to grow, and it is very encouraging to see the work of these modellers at exhibitions. This time last year we made mention of a group of youngsters in Melbourne, associated with the Victorian Branch of the Australian Model Railway Association, who put on a good display of modern image V.R. and ANR locos and rolling stock.

Since then we have had the opportunity to bring some of the work of these modellers before the public with illustrations on Page Twelve (Feb. '83). At the Melbourne exhibition this year, viewers were treated to a magnificent display of modern image locomotives and rolling stock from NSW, Victoria and South Australia.

There is some chance that some of these modellers will be coming to Sydney in July to run their models on the Menangle layout at the Castle Hill Exhibition. If plans come to fruition, they should be on display on the Saturday.

For the old hands in the hobby, it is very encouraging to see youth becoming involved in the hobby. It augurs well for the future of the hobby.

While on the exhibition scene, we have been advised that the Kingfield, Twinlakes & Maine Railroad, presented in this issue, will be on display at the Prospect Exhibition in June. If this is true then Sydney-siders are to be treated to the best of Melbourne's modelling. The quantity may not match that in Sydney but the quality sure can.

At Last — ATLIS!

Transportation is an aspect of contemporary society which, in some way or another, touches every member of the community; consequently there has been a need for a bibliography of Australian transport literature. That need has been recently fulfilled by the Bureau of Transport Economics in Canberra in the form of ATLIS — the Australian Transport Literature Information System.

The ATLIS computer-based reference system covers current literature related to all forms of Australian transport, being designed for the use of researchers, administrators, historians, transport operators, scholars and interested members of the general public. Recent issues of the following publications are among those containing feature articles and individual papers indexed to date within the ATLIS system:

- Australian National News
- Australian Model Railway Magazine
- Australian Railway Historical Society Bulletin
- Australian Railway Research and Development Organisation reports
- Bureau of Transport Economics reports
- Electric Traction
- Fleetline
- Freight and Container Transportation
- Institution of Engineers, Australia papers
- International Railway Journal
- Network — Railways of Australia Quarterly
- Newsrail
- Railway Digest
- Statewide
- The Railway News
- The Recorder
- Trolley Wire
- Truck and Bus Transportation

Bibliographical entries in ATLIS are contributed by a developing network of centres throughout Australia, including a number of transport-related Commonwealth and State organisations. The quarterly produced ATLIS Bulletin usually contains details of contemporary literature, but allowance is sometimes made for slightly more dated material where its inclusion enhances its coverage for information retrieval purposes.

ATLIS entries are each assigned a unique reference number, these being arranged sequentially in the quarterly Bulletins. In addition, all entries appear on-line as part of the cumulative ATLIS data base through the AUSINET computer-aided searching system.

ATLIS Bulletins are on sale from the Australian Government Publishing Service, either through its bookshops located in capital cities or by subscription for mailed copies. Subscription enquiries should be directed to the A.G.P.S., P.O. Box 84, Canberra. A.C.T. 2600, Australia. Enquiries regarding any other aspect of the ATLIS system should be addressed to the ATLIS Manager, Bureau of Transport Economics, P.O. Box 501, Civic Square A.C.T. 2608, Australia.

B.T.E.

The Bureau of Transport Economics is a professional research body which undertakes independent studies and investigations to assist the Commonwealth Government in formulating policy relating to all modes of transportation. Although formally linked to the Commonwealth Department of Transport and Construction, the Bureau has a considerable degree of professional and administrative autonomy, and reports directly to the Minister for Transport and Construction on its program of research work.

For comprehensive details of the Bureau's functions, organisation, research programmes and publications, readers are referred to the booklet " Role, Structure and Activities of the B.T.E.", published in August,1982. It is obtainable from the Executive Officer, Bureau of Transport Economics, P.O. Box 501, Civic Square A.C.T. 2608, Australia.

Subscribers.

Next issue will be published at least two weeks early. If you have received a subscription notice in the last three weeks your renewal note and money will have to be received in the AMRM office by June 17, 1983.

COMMERCIAL NEWS.

Arrivals.

The last few months have been a little quiet on the model scene, but a few new packages have arrived.

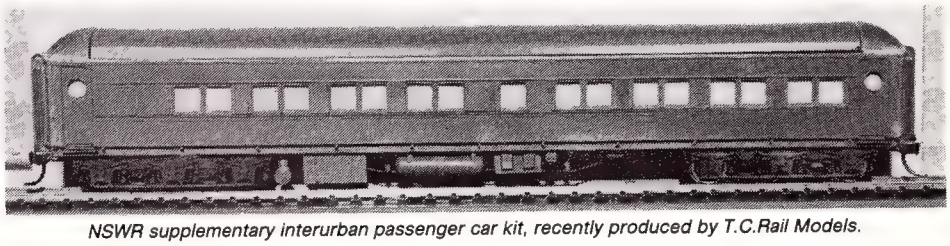
Berg's Hobbies has seen the arrival of the D53 from Korea, the C36 (Belpaire) from Korea and the 422 diesel kit from New Zealand. They also received advance production samples of the roundtop C36 from Korea, and the 600/700 class two car diesel set from New Zealand. According to all reports the demand for most of these items is very high.

On the VR scene, the DERM arrived at McBees early in March, and as these notes are being prepared the 'J' has arrived, although they have not been sighted in Sydney yet.

From New Zealand, Railmaster have released a new locomotive kit in Sn3½ scale, being the NZR 'Di' class English Electric diesel. It is an eleven piece metal body kit and is designed to run on a machined r-t-r chassis.

Railmaster also advise that they still have stocks of the NZR standard 55' turntable kit. The kit is comprised of metal castings and a moulded plastic pit. Although it is designed for Sn3½ scale, it is 260mm long, which is nearly 75' in HO scale, and being a cast iron table, it has a similar appearance to the NSWR turntables. AMRM will present a review of this kit in a future issue.

Broad gauge Bodies have released a number of



NSWR supplementary interurban passenger car kit, recently produced by T.C.Rail Models.

new kits, including the ANR 'Ob' with mallee root load, The V.R. 'VOEX' open wagon with slab steel load and the ANR 'VFX' louvre van. BGB Have also released a number of new decals including a pack for Com Rails and ANR Central Region (before Australian National came into being), a set for the A.N. 8300 'Lemon Twist' style (before the van was recoded to AVAY) and two sets of the NSW SRA double blue arrows (one on clear background the other on white).

The Chatswood Exhibition produced its usual compliment of new HO scale NSW epoxy kits. Stephen Johnson Models and Main West Models released a 'BX' dog box style passenger car, while Rails North Models released a 'GP' concentrate wagon, a signal box kit and a large water tower kit. The signal box is based on the signal box at Grafton. RNM also advised of the production of a seven car 'HUB' set, to be produced to order only. More details on these products as they come to hand.

Casula Hobbies now have full stocks of their new high quality wheels, especially the Lima replacement wheel. Modellers are very quickly finding out that the use of these wheels under the Lima coaches is virtually doubling the number of cars a locomotive can haul. As an example the Trax Z12 class can only lift 2 Lima 72'6" cars on a 1 in 25 grade, but when the Casula (Lima replacement) wheels are fitted to the cars the load can be doubled. Products like these wheels will continue to come onto the market as manufacturers gain experience and as long as modellers indicate that there is a need for the products.

Rubber latex can be found in some hobby shops, under the T.M. MODELS brand. This is the latex that is used for rock casting on scenery. Railmac latest publication 'Mile End's Steam Finale' by Ken Pearce has been released and is now in many shops.

The Trax Z20 class tank locomotive being built in Korea, was due in the hobby shops as this issue went to press.

Expected Arrivals.

Southern Models advise that the Lima 'GY' open wagon is due in Australia in June, while advice to hand indicates that the Sentinel Z20 class locomotive kit is due for release in the near future.

The delivery of the roundtop C36 from Bergs is expected mid-year, and the 600/700 class railcars should be on hand around the time this magazine appears.

As we go to press, delivery is expected of a NSW SRA 'CHS' coal hopper kit in HO scale. It is being produced by the injection moulding process, and is being marketed under the Mini Models brand name.

Two additional sets of decals for the 'Overland' are due for release soon. The first will be the basic set for the V.R. & A.N.R. Overland, to compliment the original V.R.& S.A.R Overland. The new set will supply new car names and general lettering as used since the S.A.R. became A.N.R. The second new set, a rather large package will include all those details for the Overland, that were not included on either of the other sets. Addition names, numbers, etc.

Future Arrivals.

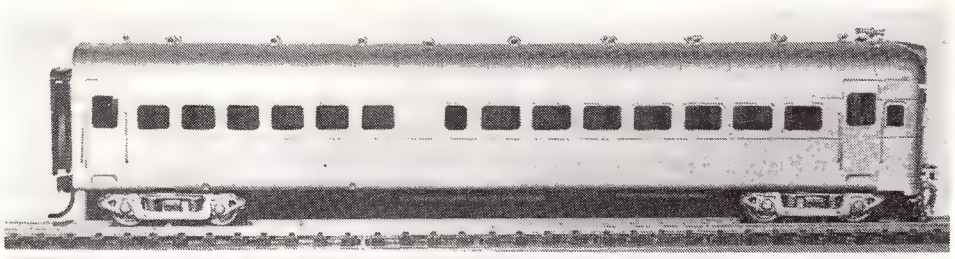
Last issue we reported that Berg's Hobbies were planning a MHO and a VHO van, in brass and ready to run. Unfortunately we mixed up our letters a little. It should have been a MHO and a EHO.

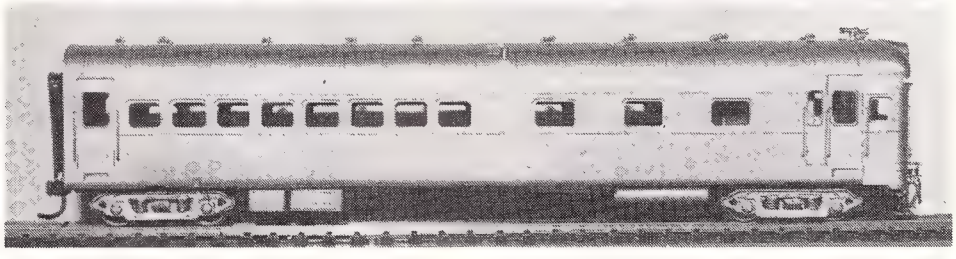
George Berg also advise that they plan to produce a rerun of the D57 and a run of the D58 in the near future. Both models will be produced by Samhongsa in Korea. The D55, from Japan is due mid year, while a rerun of the CPH/CTH, again from Korea is due later in the year.

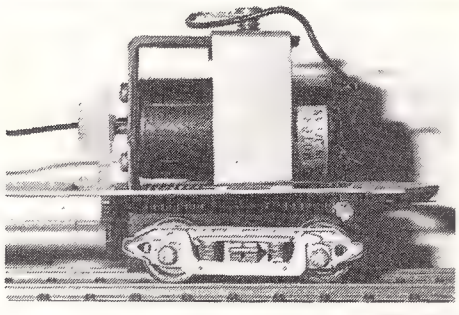
Mansfield Hobbies advise that the pilot model of the D50 has arrived and that the production run of the model from Samhongsa is due in a few months. David Anderson indicated that the 40 class should be their next model from Korea, and is due late 1983. The Z17 is scedulèd for March '84.

Broad Gauge Bodies have advised of a few new projects including a V.R. bogie wheat hopper, the GJF which in real life is very large and painted yellow, and a decal pack for South Maitland coal hoppers.

McBees Hobby Centre advise that they plan to produce a 'C' van and a 'ZPL' van. Both will come from The Model Company in New Zealand, who produced the 'Z' van. It is interesting to note that there has been a few production runs of the 'Z' van, and the opportunity has been taken to change the appearance of some vans with minor, but accurate, prototype modifications.

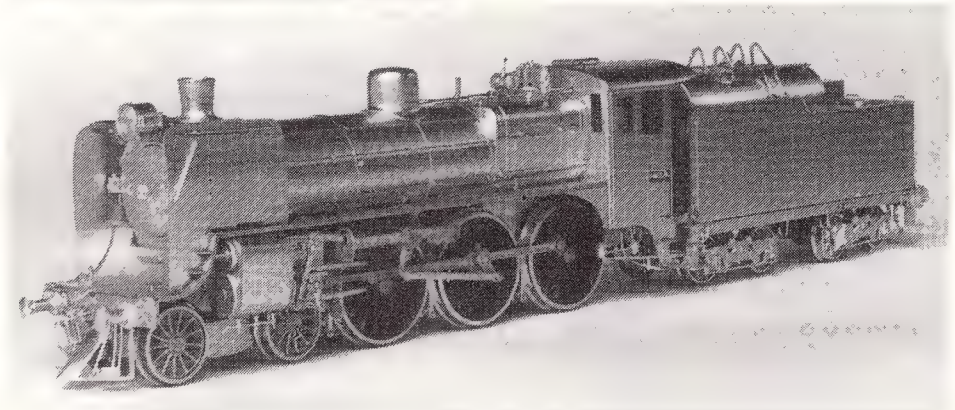






The photographs above and left, illustrate the advance production model of the Bergs Brass Models 600/700 class railcars. Being produced in New Zealand by The Model Company, the cars are powered by a single bogie which is driven by a Sagami motor. The bogie supplies a very smooth, yet powerful drive to the track. The 600/700 cars are the first brass ready-to-run models to be produced for NSW modellers by New Zealand.

The photo below illustrates the pilot model of Broad Gauge Model's A². The model is hand built and does not include some of the etchings and castings that are being specially produced for the production run, which is due in Australia in late May.



Broad Gauge Models used the Melbourne Exhibition as a venue to announce and display a few of their forth coming productions. This included the A², which is due at the end of May, the V.R. 'U' van kit, a V.R. water column kit and a colonial cottage kit. Advise to hand suggests that all except the cottage should be on hand soon.

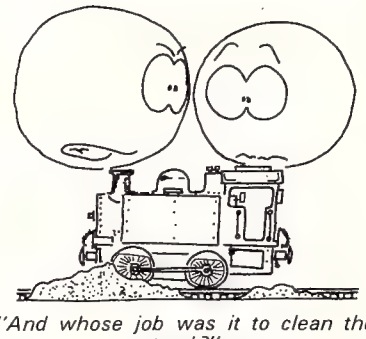
Trax Model Products advise that their next injection moulded kit, the 'BX' dog box coach, is on schedule for release later in the year.

Railscale is a new name among Australian manufacturers, and by all accounts they will be making a fine contribution to the local market. Railscale was set up by Mike Vowles and Eddie Garde, and they have spent two years preparing for the current project which is the production, in brass of 19th century locomotives and rolling stock. The first items will be a HO scale NSWR 1 class and some of the 1855 passenger cars. Further information on these items and Railscale as details come to hand.

Other News.

Locomotion, the distributors of Electrotren, have advised that they are now selling the range by mail order as well as acting as distributor. This move has been generated by a number of reasons, including complaints from the public that they cannot obtain Electrotren in the shops.

When writing to advertisers — advise them that you saw their advert in AMRM.



"And whose job was it to clean the track?"

DID YOU KNOW?

That a tiny drop of 'Loctite' will prevent that screw from working loose? Only use a tiny drop, just enough to wet the thread and the screw can still be removed — when *you* want it to come out!

Gordon Duncan.

CORRECTION.

Last issue, in the Review of the Main West Model's 48 class diesel kit, mention was made of a decal pack, as being a MnJ decal. This was incorrect. M.W.M. had a special decal designed and produced to specifically fit the kit. — *Editor.*

MAILBAG

Continued from page 56.

Sir,

Congratulations! You have succeeded!

Until a few weeks ago I was a happy N scaler planning my U.S. prototype layout for my new home. What does AMRM go and do? On the day I get my slides of ANR Tasmanian region that I took on a recent holiday, the February 1983 AMRM arrives. There on the cover is Y4, which I shot at Scottsdale and 867 which I shot at Launceston. Inside the magazine Michael Dix shows how to model the CE class gondola. You guessed it. I photographed one of them opposite the old Launceston gas works.

Now, as if this were not enough you go and publish another article on Tasmania in the April AMRM! I give you formal notice of surrender. I am now going to model Tasmanian railways in HOn3. The gauge is a bit narrow, but I can overlook this due to the commercially available materials in this scale. Once I have catalogued all my N scale equipment I will even place an ad in your magazine!

I will keep you posted on how I go. I intend to model St.Marys as detailed in the August 1982 issue of AMRM. I know this area well as I covered it though my work when I lived in Tasmania.

I am very interested in corresponding with other modellers of the Tasmanian Railway system.

Now just because I have succumbed to your cunning plot, don't think that you can stop publishing Tasmanian articles! I suggest a 'Memo: M.Dix, Get that typewriter going'.

When I've made my first 'X' class I will let you know. Meanwhile please keep up the excellent work that you do with AMRM. I showed the magazine to a non railway associate who was highly impressed. He still does not believe that it is a product of volunteer labour. As he is involved in publishing I think this indicates the superb job that you do. Anyway, back to that 'X' class . . . . .

Gary Fallon,
Ringwood. 3134.

Both Michael Dix and Tony Parnell have been very busy, for we have two T.G.R. articles on hand. One, on the FP log wagons, will be in next issue. — Editor.

Sir,

I've just read your 20th anniversary edition of the AMRM, and I'd like to congratulate you and your staff. Publishing a magazine can sometimes seem like a thankless job, but I know what its like to have helped put another edition 'to bed'. Its quite a satisfying sensation.

It doesn't seem like 20 years when Tim Moss invited me onto the staff of the original AMRM as an illustrator and cartoonist. (I ended up doing a whole lot more as well).

Reviewing the colour photographs in the anniversary issue, reminded me of the wish that Tim had about getting colour into those early editions. In fact I can remember a painting by Ellis Eyre of 3320 (on the cover of the July/August 1966 edition) and Tim saying how great it would have been in colour. I know that the anniversary edition is not your first edition with a colour cover, but it underscores the growth of the magazine that can afford it.

This letter was meant to express my reaction to your magazine and the efforts of you and your staff. Once again, congratulations.

John Parker,
Umina Beach. 2257.

PUBLIC NOTICE

Model Railway Promotional Council of N.S.W.

The guessing competition for the brass C38 class locomotive was won by Mr.L.Barnes of Balgowlah.

PUBLIC NOTICE

After 29 years of operation, the Board of Directors of the WINGROVE RAILWAY wish to record their deep appreciation for the immeasurable contributions in time, material and expertise made to the railway by two generations of operators.

J.D.McLean.
General Manager.

SOME FURTHER NOTES ON AB90

In the article on N.S.W. dining car AB90, which appeared in the April 1983 edition of this magazine, I said (on page 31) that this vehicle *". . . may have been the only N.S.W.G.R. full dining car to travel across the Clarence River on a train ferry".*

It would appear that I am in error. The January 1978 issue of 'Roundhouse' (the journal of the N.S.W. Rail Transport Museum) states that the old Hudson dining car AB41 formed part of a Royal Train from Murwillumbah to Grafton on 13 April 1927, the vehicles for this special being sent north from Sydney a few days earlier. Guess how they were transhipped across the Clarence River? I might add that AB90 was in the consist of the complementary Royal Train which took the Duke and Dutchess of York from South Grafton back to Sydney.

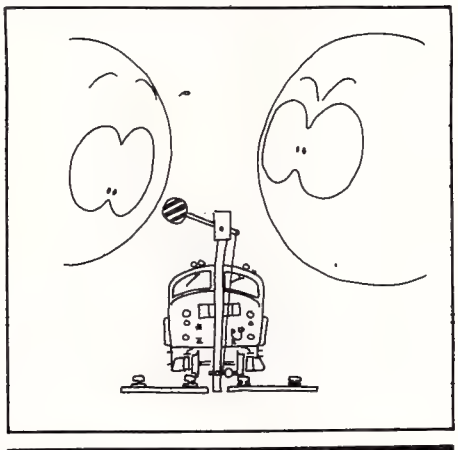
A minor error also appeared in the manuscript. The 2BC type bogies are of 7'0" (2.133 metre) wheelbase, not 8'0" (2.44 metre) type as mentioned in the text. The drawings, of course, sow the correct dimension.

I offer my apologies for any impressions which may have been conveyed to readers.

Two official Railway photographs appearing in 'Roundhouse', Vol.17, No.4, October 1980, clarify some points regarding the external appearance of AB90. On page 31 we find an illustration taken during 1928 showing the words "DINING CAR" on the side of this vehicle. Page 52 provides evidence that the small kitchen windows existed as early as 25 June 1956, at a time when the car still displayed crown lights.

A number of other photographs of AB90 have been traced. Graeme Stanley's recording of the car on 11/12 March 1961 during a tour through the Central West of N.S.W. (A.R.H.S. Bulletin 284, June 1961; pp.97-98) shows the car possessing crown lights; the door still appearing at the non-kitchen end. However, two photographs taken of another A.R.H.S. tour on 17 June 1962 sow the vehicle to be without crown lights but retaining the aforementioned door. These illustrations are those taken by Dennis O'Brien and Dave Taylor, and published in 'Generation One' (at page 45) and 'A.R.H.S. Bulletin 299, September 1962 (p.145) respectively.

Paul Rogers.



MODELLING HINTS

- A loco headlight can be made from 4mm copper tubing cut to about 4½mm long. Into this is inserted a concave or funnel-shaped piece of aluminium foil for the reflector. Try not to tear it as the hole to go in the centre must be close fitting to enable the glue to grip the bulb — which is a rounded knob about 2mm nipped from the end of that impossible-to-break piece of plastic which holds your new socks together. Cover with an inset circle of shirtbox celluloid.
- Fusewire, thick or thin, handled with long-nosed pliers and tweezers, can be shaped, bent and angled for handrails and stanchions, coupler hooks and links, hoses and taps, and brass numbers.
- If working in the living room cover your shagpile carpet with blank paper, then you'll find the numbers again if you drop them. Bend them to shape with pliers as per previous AMRM hints and place them on the FLAT inner plier jaw surface. A gentle squeeze and the number comes out flat, with the coating rubbed off exposing the bare copper wire. 3 and 8 shapes need practice as they fracture easily.
- When painting or transporting locos or stock, wire the wheels with fusewire to short length of track. Slip a wooden swab stick, or anything similar roughly 6" long, fore and aft between the sleepers and the rail. It just can't fall on its side then!

A. Raymond

ADVERTISING DEADLINE.

The deadline for advertising for the August 1983 issue is June 1, 1983. Please be early. - *Editor.*

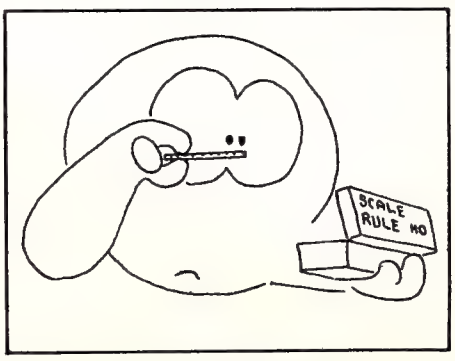
ADDENDUM

KITBASH A DINING CAR
— AB90 —

Neil Graham's article on Kitbashing AB90 has raised the modelling interest in a number of modellers, some of whom have queried a few points in the article. Listed below are answers to a few of the questions raised:-

- The cutting of the sides is performed with a razor saw.
- Removal of the centre posts in the crownlights, is only performed on the sections required for the AB90 project.
- Floquil Rust (RR73) paint must be applied to the roof, the body of the car, the vestibule connections and some MBE body off cuts.
- The sections on the diagrams marked with crossed diagonal lines are unwanted for both the AB90, or the ACM project. The left-over parts should be safely stored in the Lima Twelve Wheeler Parts Bank, for future use.

— Editor.



The **August 1983** issue of the **Australian MODEL RAILWAY Magazine** should be available after July 15, 1983 — *Editor.*

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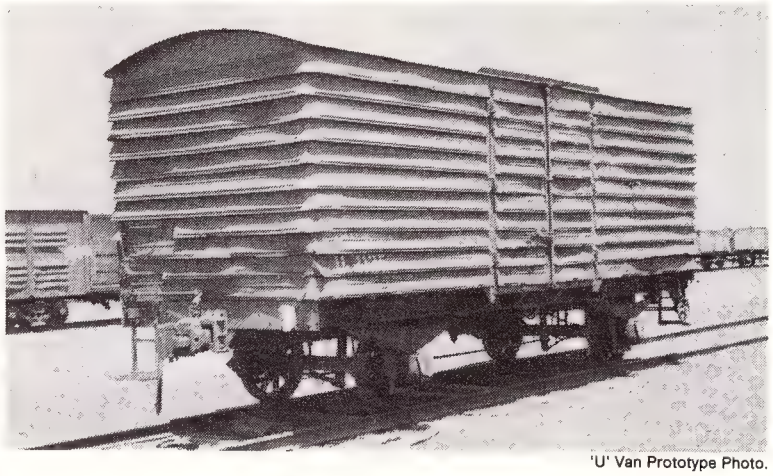

'U' Van Prototype Photo.

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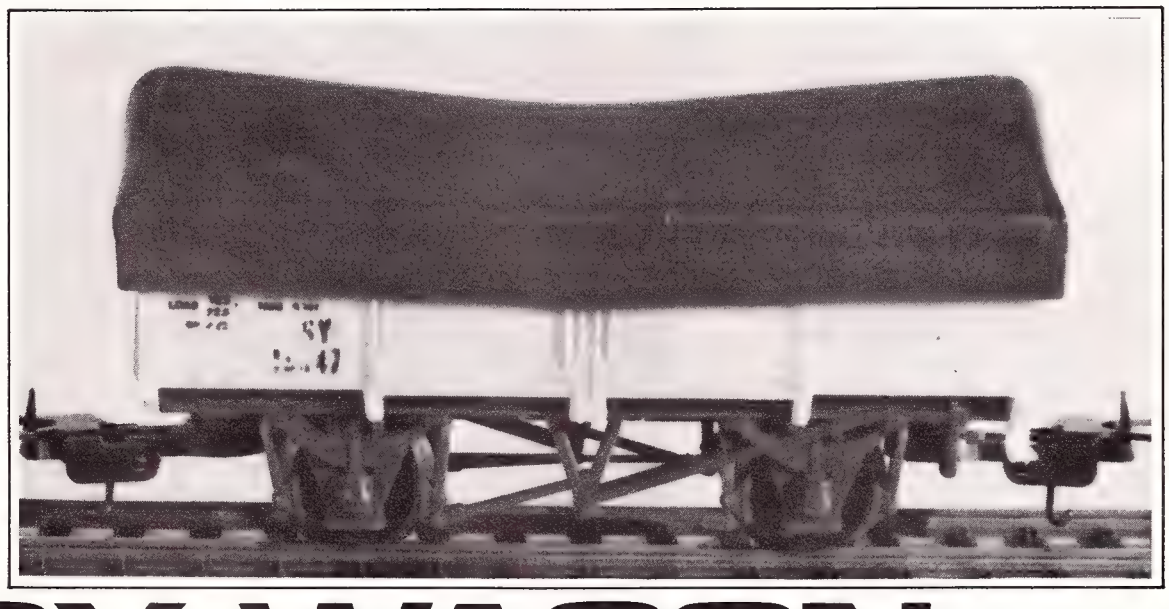

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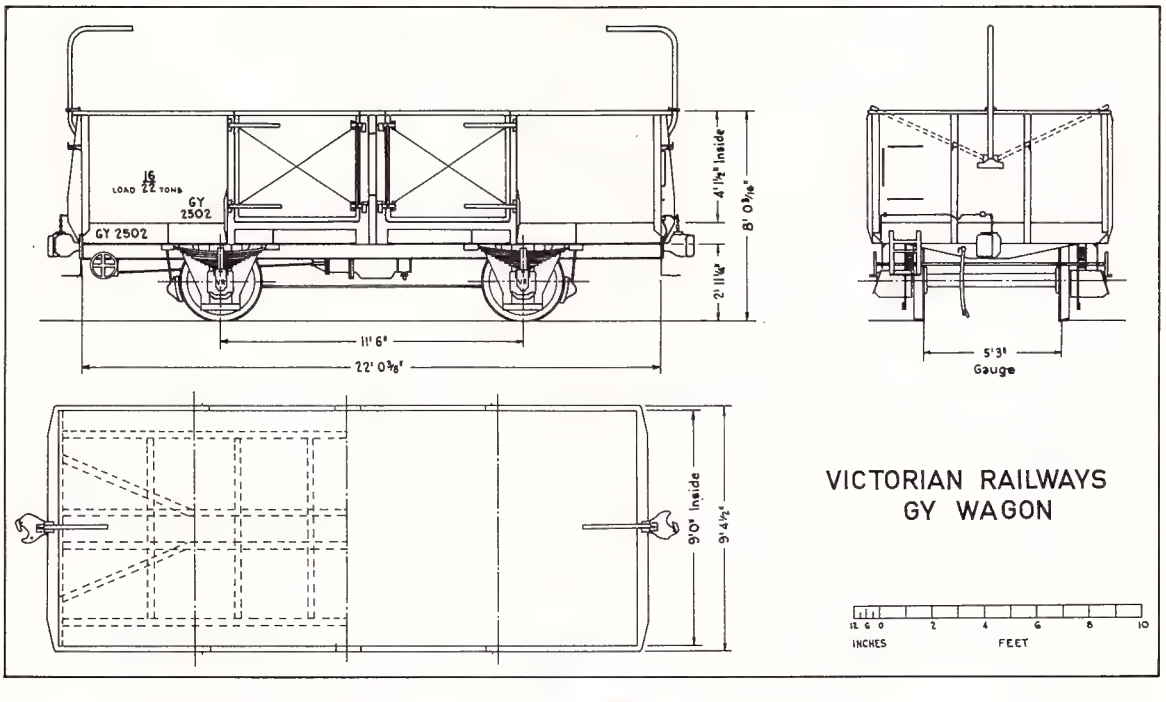

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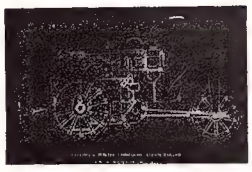

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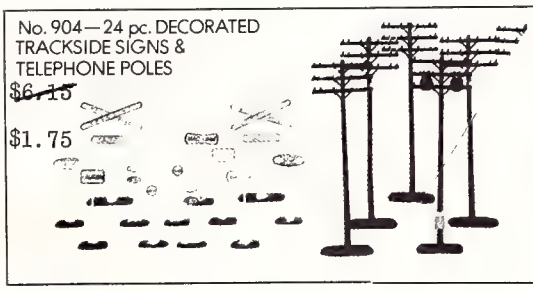

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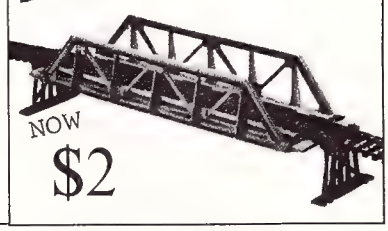

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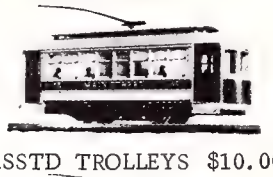

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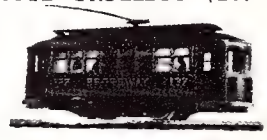

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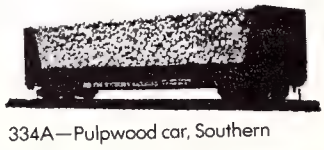

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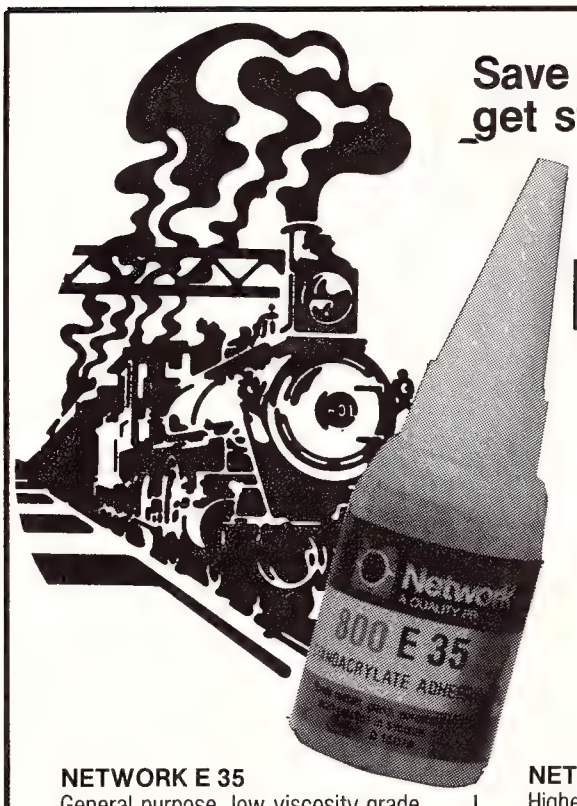

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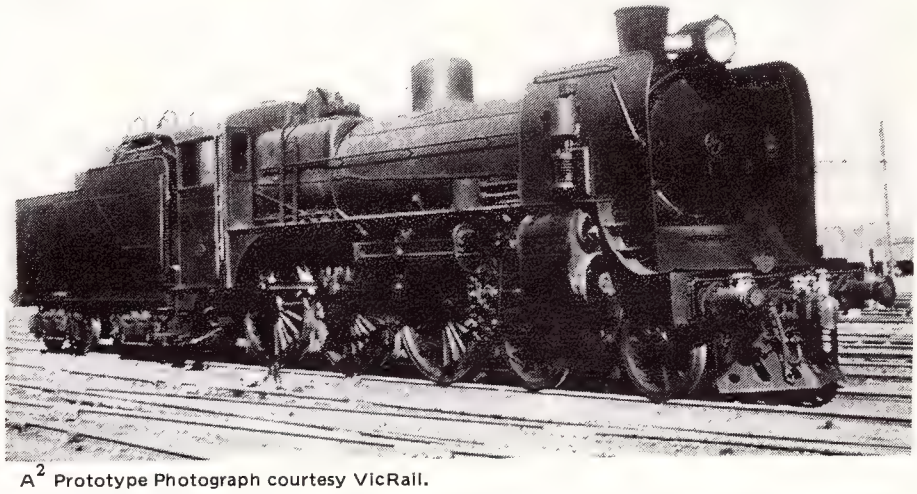

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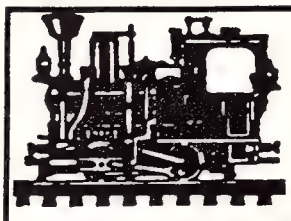

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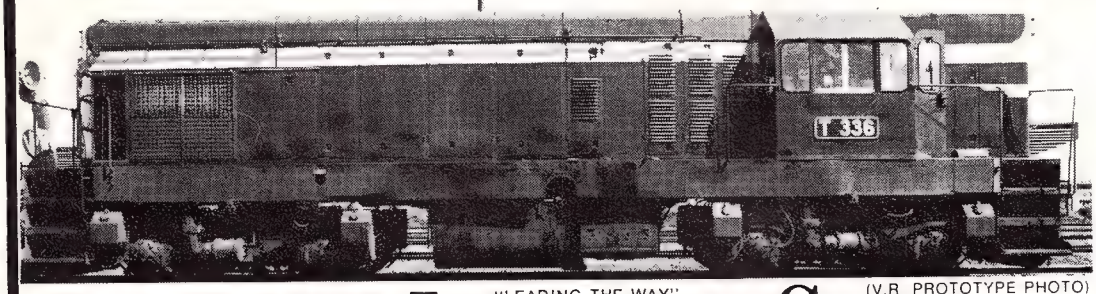

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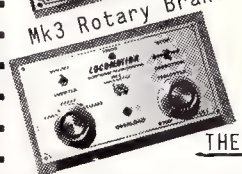

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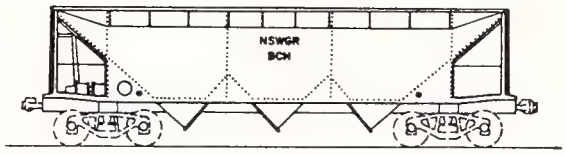

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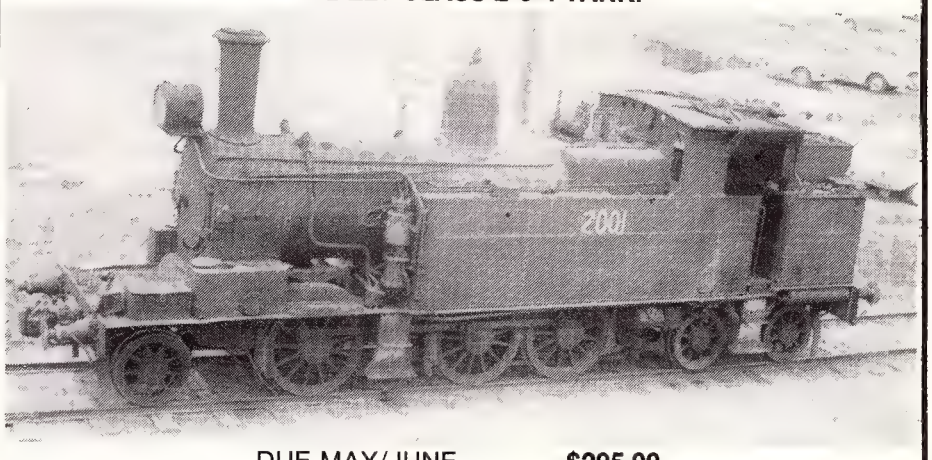

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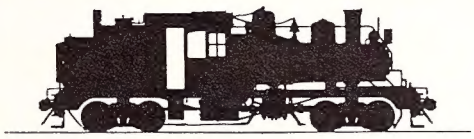

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ONE articulated 2-6-4-0T model locomotive utilizing the Hagans Patent for articulation. References for the prototype after which the model was made. 1. Light Railways No.43 p.14; 2. Locomotives of Australia L.Oberg p.96; 3. Articulated Locos L.Wiener p.264; 4. ARHS No.316 Feb '64 p.40; 5. AMRM Nov/Dec '77 p.20. The model is 48" long, 12.5" wide, 16.5" high and runs on 3.5" gauge track. Scale 1.75"/foot. Cylinders 2 3/16" dia x 2 3/16" stroke; driving wheels 4.375" dia; dry weight 240lbs; boiler dia 6.5" steel Briggs type with current certificate; operating pressure 80 PSI. The loco can easily haul 25 passengers up 1 in 80 gradients. This includes stopping and starting on curves on the 1 in 80 sections. Colour: Majority – Dark green, black, grey and red trim. Driving truck & tools included. Genuine callers only. Geoff Murdock (02) 627 1045. This is possibility the only model of the only prototype ever made.
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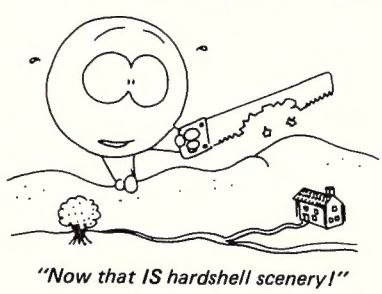

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With an all up mass of 548,886 Kg the "Big Boys" are generally recognised as being the largest steam locos ever built.

These Rivarossi models have a very powerful motor connected to both driver groups by universally jointed shafts and pendular transmissions. The models are 475mm long and can negotiate curves down to 400mm radius.

1254/2 "Big Boy" 4-8-8-4 Articulated Locomotive with "Centipede" tender in black with silver grey smoke and fire boxes.

1254/3 "Big Boy" 4-8-8-4 Articulated Locomotive with "Centipede" tender painted all over black with white lettering.

FEF3 "NORTHERN"

The first FEF2 4-8-4 "Northern" type loco was built by ALCO for the Union Pacific Railroad in 1927. The last of the more modern FEF3 version was delivered in 1944. With a top speed in the region of 160 km/h the FEF was generally regarded as a passenger engine but saw much service in freight traffic.

These outstanding models by Rivarossi have a powerful motor, working headlights and nicely detailed operating valve gear. They are 405mm long but can negotiate curves down to 400mm radius.

1527 FEF3 4-8-4 "Northern" Locomotive No. 836 with "Centipede" tender in the two tone grey passenger livery.

1528 FEF3 4-8-4 "Northern" Locomotive No. 8444 with "Centipede" tender in black livery with silver smoke and fire boxes.

PECO

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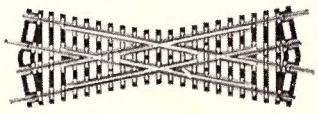

ST-200	Standard Straight - 168mm long	$1.45
ST-201	Double Straight - 226mm long	$2.00
ST-202	Short Straight - 79mm long	$1.15
ST-203	Special Short Straight	$1.15
ST-205	Isolating Track with switch - 168mm	$2.25
ST-220	Standard No. 1 Curve - 372mm radius	$1.55
ST-221	Double No. 1 Curve - 372mm radius	$2.00
ST-222	Half No. 1 Curve - 372mm radius	$1.25
ST-225	Standard No. 2 Curve - 438mm radius	$1.60
ST-226	Double No. 2 Curve - 438mm radius	$2.10
ST-227	Half No. 2 Curve - 438mm radius	$1.25
ST-240	Right hand Point - No. 2 radius	$9.50
ST-241	Left hand Point - No. 2 radius	$9.50
ST-242	Curved Point - Right Hand	$12.50
ST-243	Curved Point - Left Hand	$12.50
ST-250	Crossing (L/H or R/H used with ST-203)	$9.50
ST-255	Underlay - R/H Point	$1.60
ST-256	Underlay - L/H Point	$1.60
ST-257	Underlay - R/H Curved Point	$1.60
ST-258	Underlay - L/H Curved Point	$1.60
ST-265	Underlay - Crossing	$1.60
ST-260	Level Crossing with gates	$6.25
ST-267	Level Crossing with booms	$6.10
ST-268	Level Crossing add on straight section	$3.15
ST-269	Level Crossing add on No. 2 curves sec.	$3.15
ST-270	Sleeperbuilt Buffer Stop	$1.20
ST-271	De-coupling Unit	$1.30
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ST-296	Ramp Unit - Brick Edging - pack of 2	$3.15
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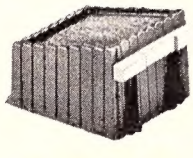

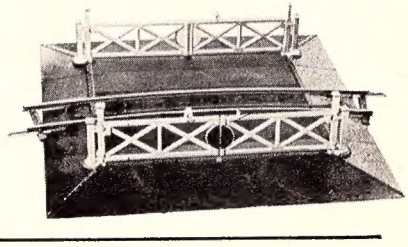

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"MODEL RAILWAY NEWSLETTER" No. 137

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HO/OO - 3rd Edition

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DIVISIONAL LISTS

Division 1. Locomotives

Division 4. Trackwork

Division 6. Non-railway Structures etc.

Division 7. "Up the Hill & Down the Dale"

Division 8. The Service Division

It is taking a long time to get these out but we are getting there. Division Nos. 2, 3 and 5 are still to issue.

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